

# GEORGE ENGELMANN BOTANICAL NOTEBOOKS


*Pagination Note:  
Since many of the items lack a specific  
page number, the page number displayed  
online refers to the sequentially created  
number each item was given upon  
cataloging the materials.*

"*Abies amabilis*"

Sierra Mountain trail, Calif. Prof Brewer

April 22 1871

leaves on the concrecating branchlet



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI  
BOTANICAL  
GARDEN

12627

Leitch & Colties

DRUGGISTS

South West Corner Fifth and Market Streets

MISSOURI BOTANICAL GARDEN  
GEORGE ENGELMANN PAPERS



0

1

2

3

4

5

6

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10

cm

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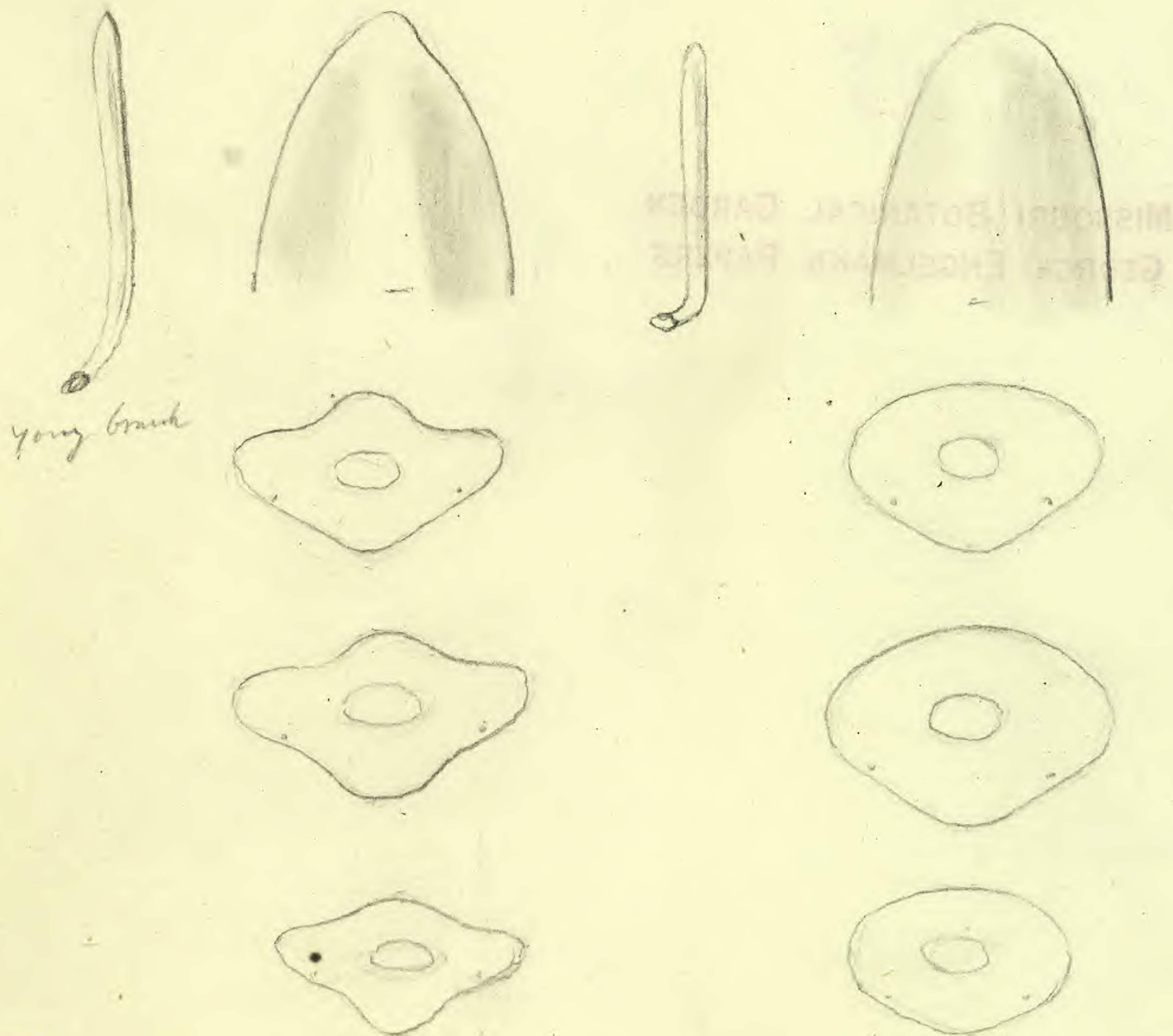


MISSOURI  
BOTANICAL  
GARDEN

"A. amabilis"

April 12, 1972

Carson Pass, Brewer 2093



0 1 2 3 4 5 6 7 8 9 10

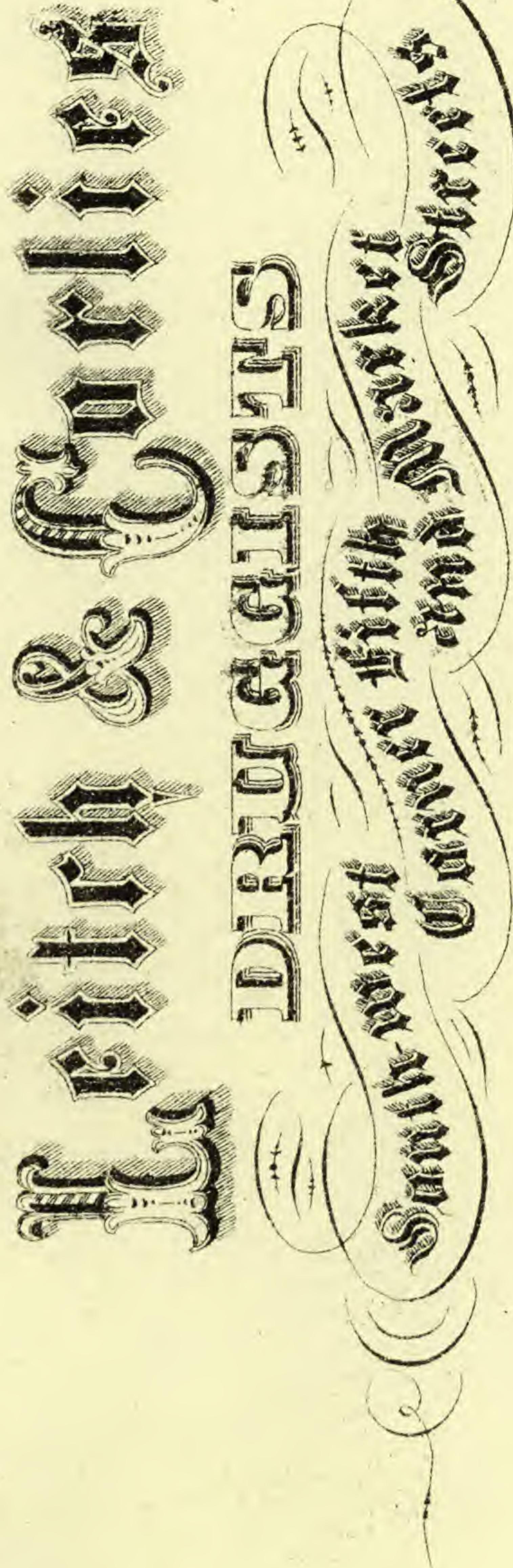
cm

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GARDEN

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MISSOURI BOTANICAL GARDEN  
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0 1 2 3 4 5 6 7 8 9 10  
cm

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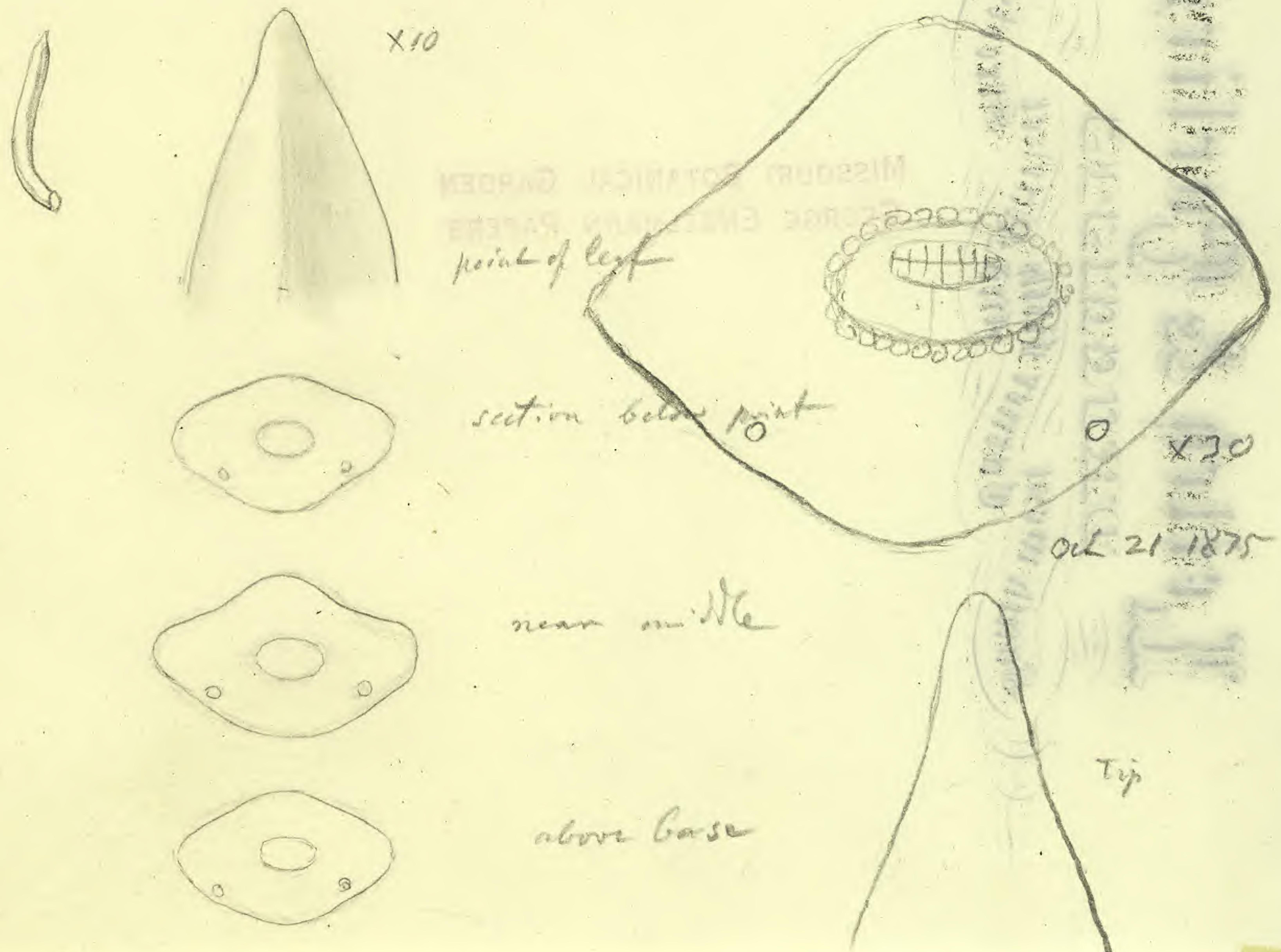


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GARDEN

"*A. amabilis*"

April 72

♀ leaves below the cones - Bolander, also  
Clark's



0 1 2 3 4 5 6 7 8 9 10

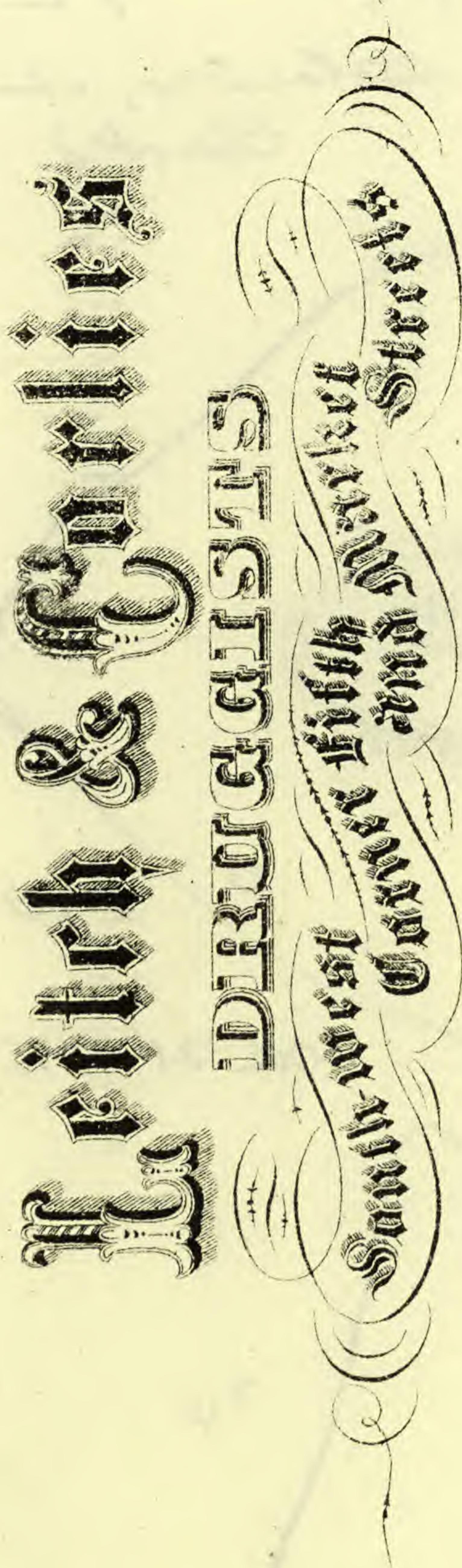
cm

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GARDEN

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MISSOURI BOTANICAL GARDEN  
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0 1 2 3 4 5 6 7 8 9 10

cm

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BOTANICAL  
GARDEN

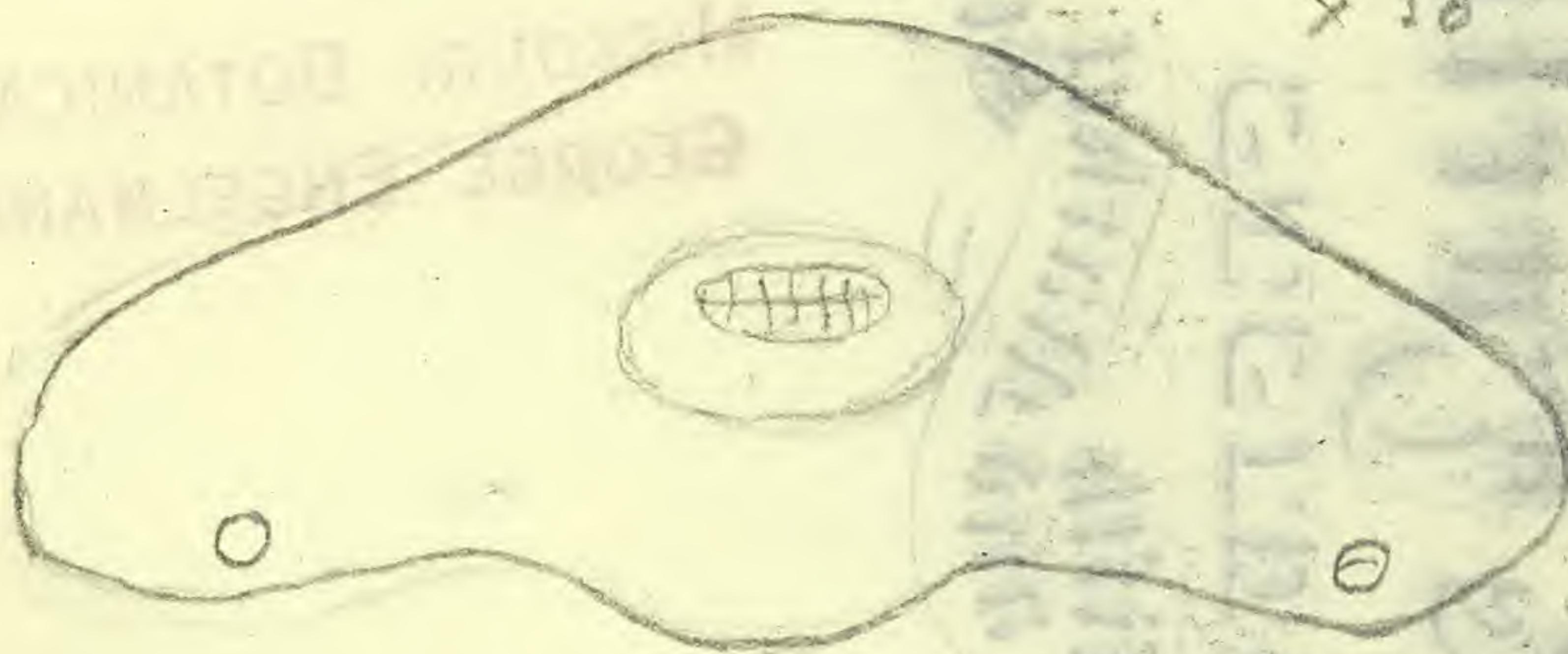
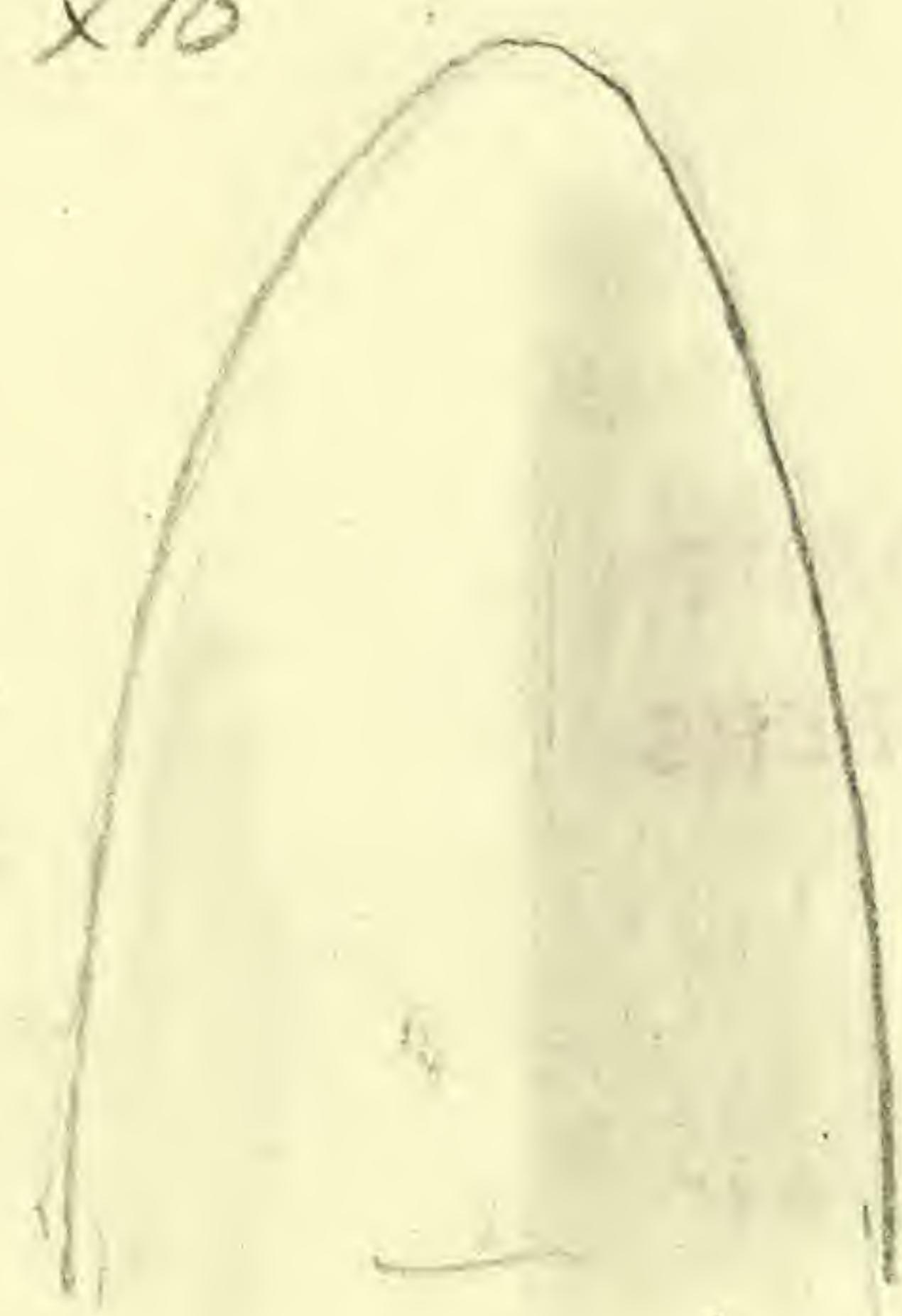
"*A. ambilis*"

April 12 1872

Bolander at Clark's, Stanis.

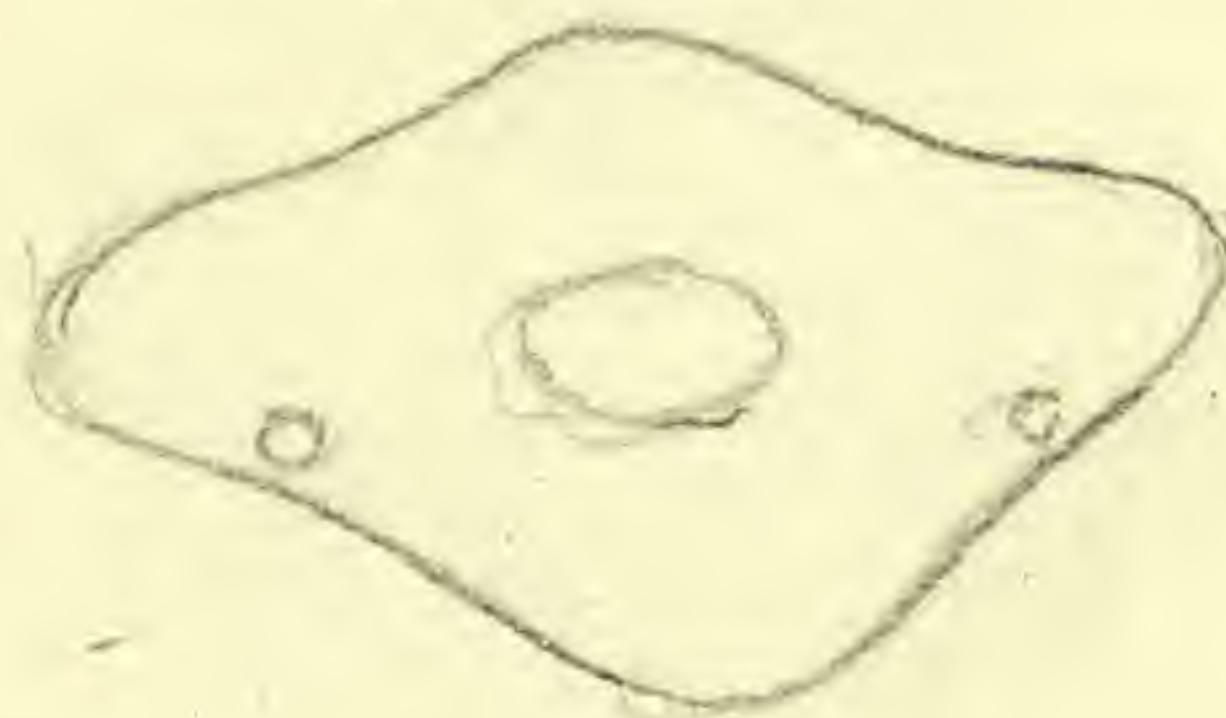


x10



x10

Section of leaf  
near tip



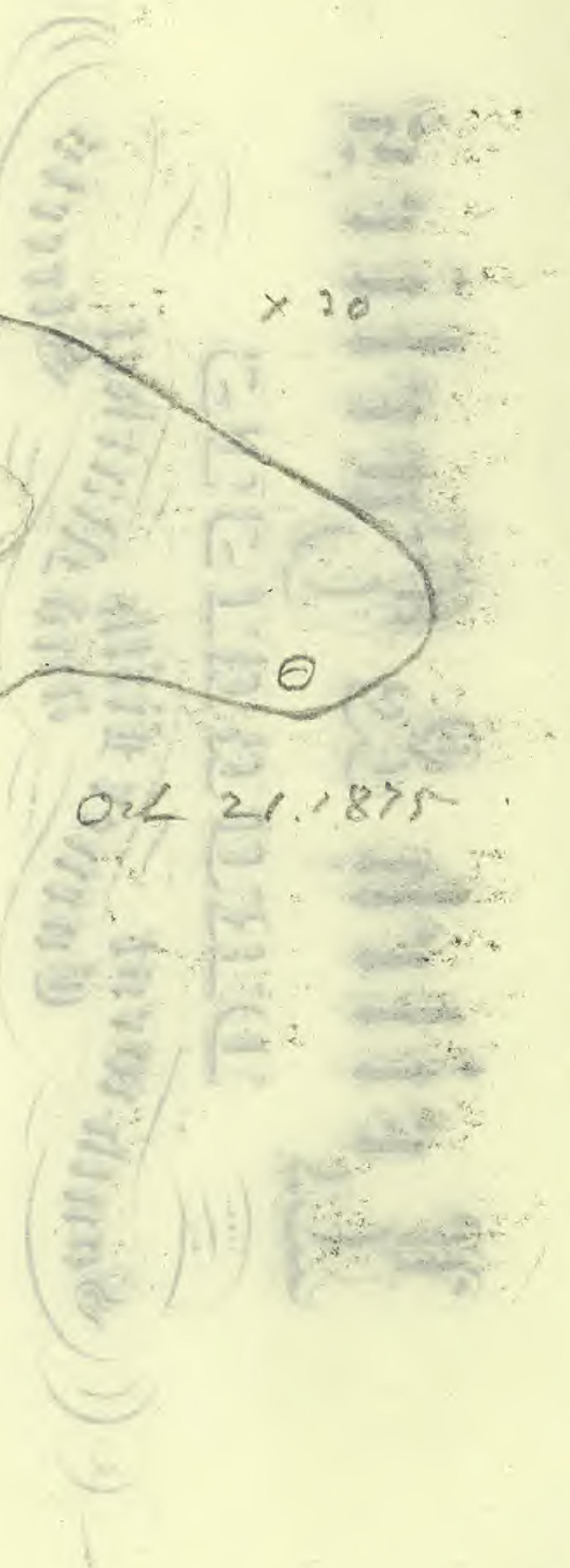
in middle



near base



Oct 21. 1875



0 1 2 3 4 5 6 7 8 9 10

cm

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MISSOURI  
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GARDEN

12630

Missouri & Gentry  
DRUGGISTS  
South West Grand Market Street

MISSOURI BOTANICAL GARDEN  
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0 1 2 3 4 5 6 7 8 9 10

cm

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MISSOURI  
BOTANICAL  
GARDEN

24 tab

*A. magnifica*  
Sierra



0  
cm

1 2 3 4 5 6 7 8 9 10

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BOTANICAL  
GARDEN

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MISSOURI BOTANICAL GARDEN  
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0  
cm

1 2 3 4 5 6 7 8 9 10

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BOTANICAL  
GARDEN

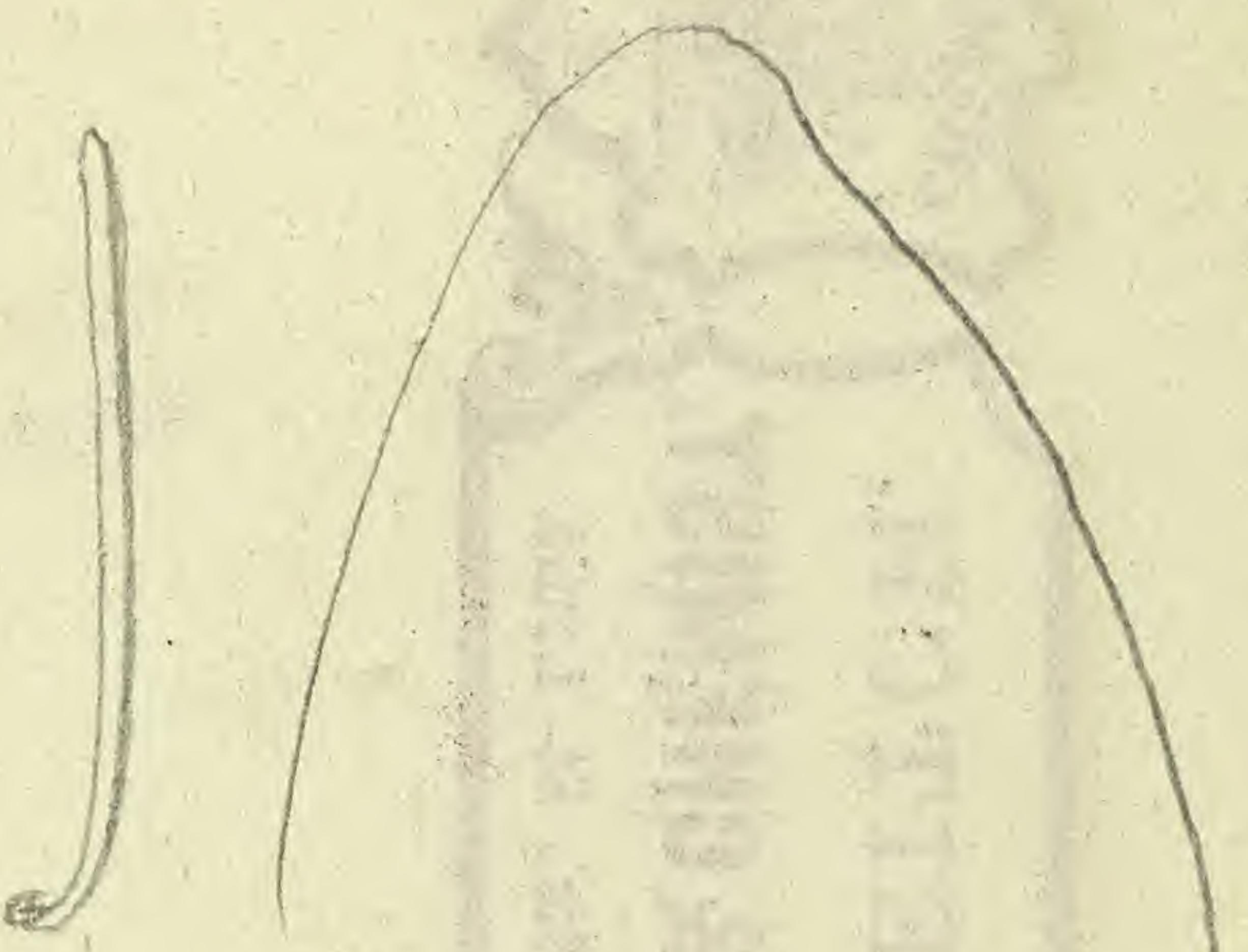
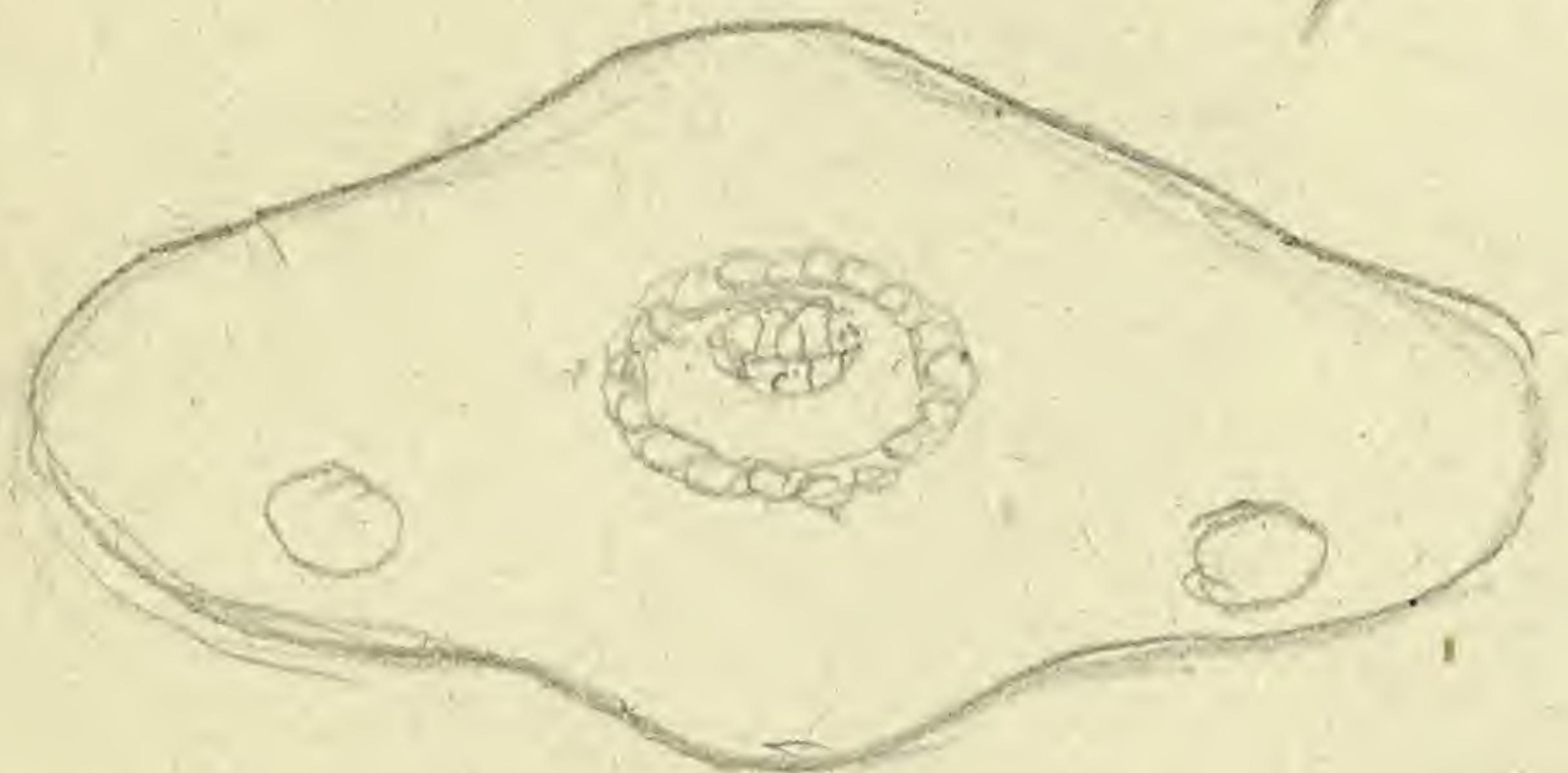
6 *Abies megaphylla*

leaf of a vigorous young shoot

Calif. specimen 1875

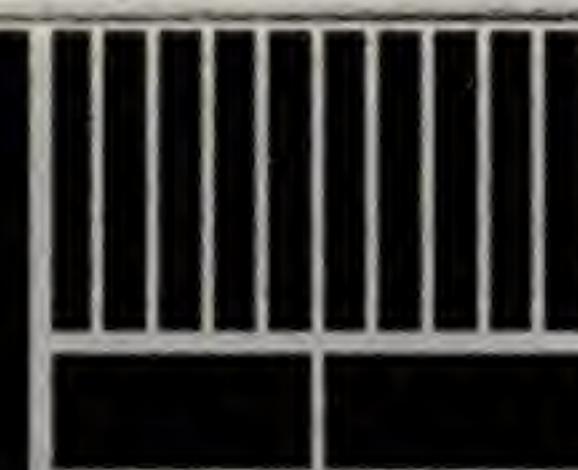
Feb 20 1876

× 30



12-14 layers of stomata above  
4-5 in each band below

hypoderm cells on all 4 corners, none other



0

1

2

3

4

5

6

7

8

9

10

cm

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BOTANICAL  
GARDEN

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MISSOURI BOTANICAL GARDEN  
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0  
cm

1 2 3 4 5 6 7 8 9 10

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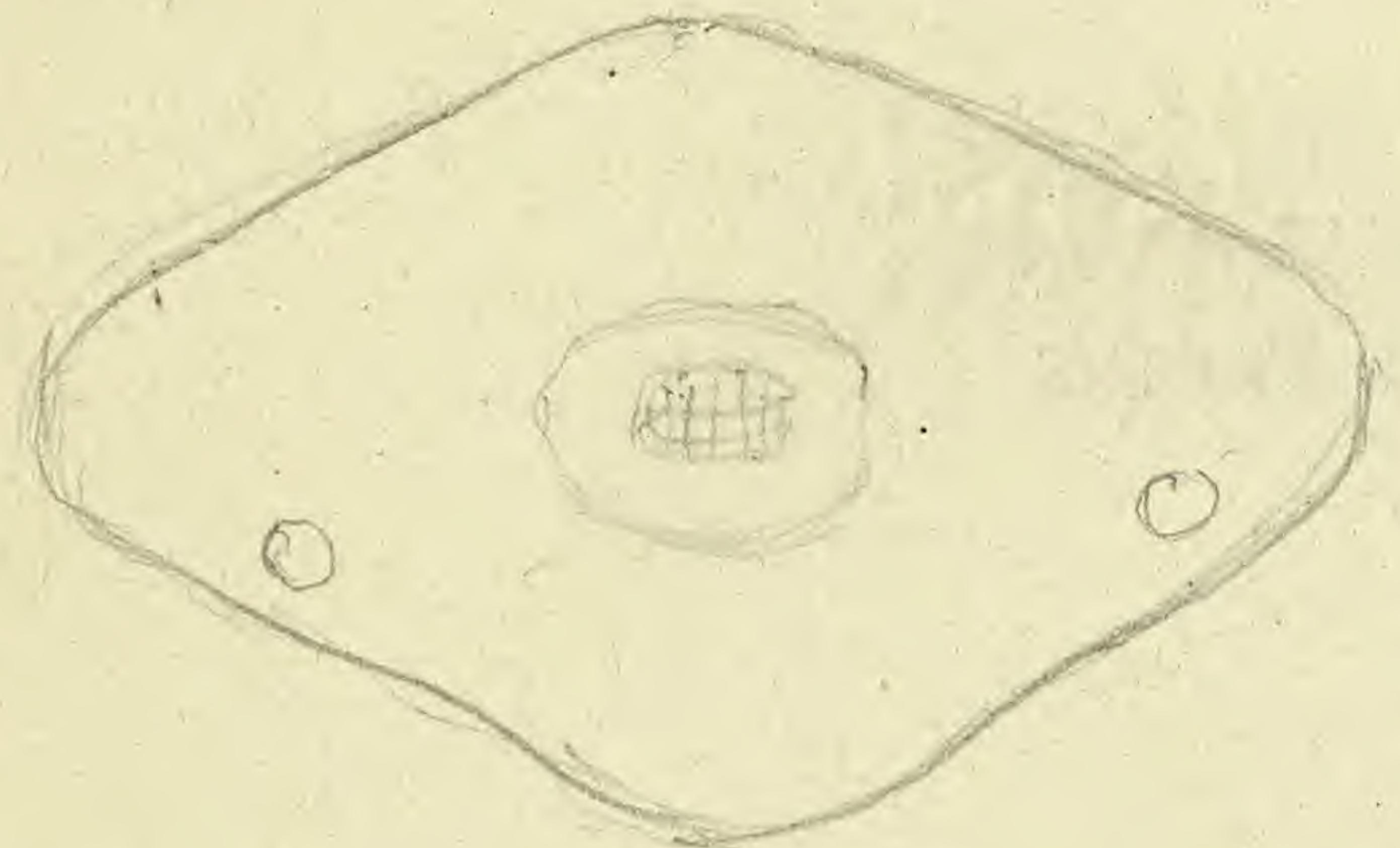
MISSOURI  
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GARDEN

*Abies magnifica*

Febr 20 1876

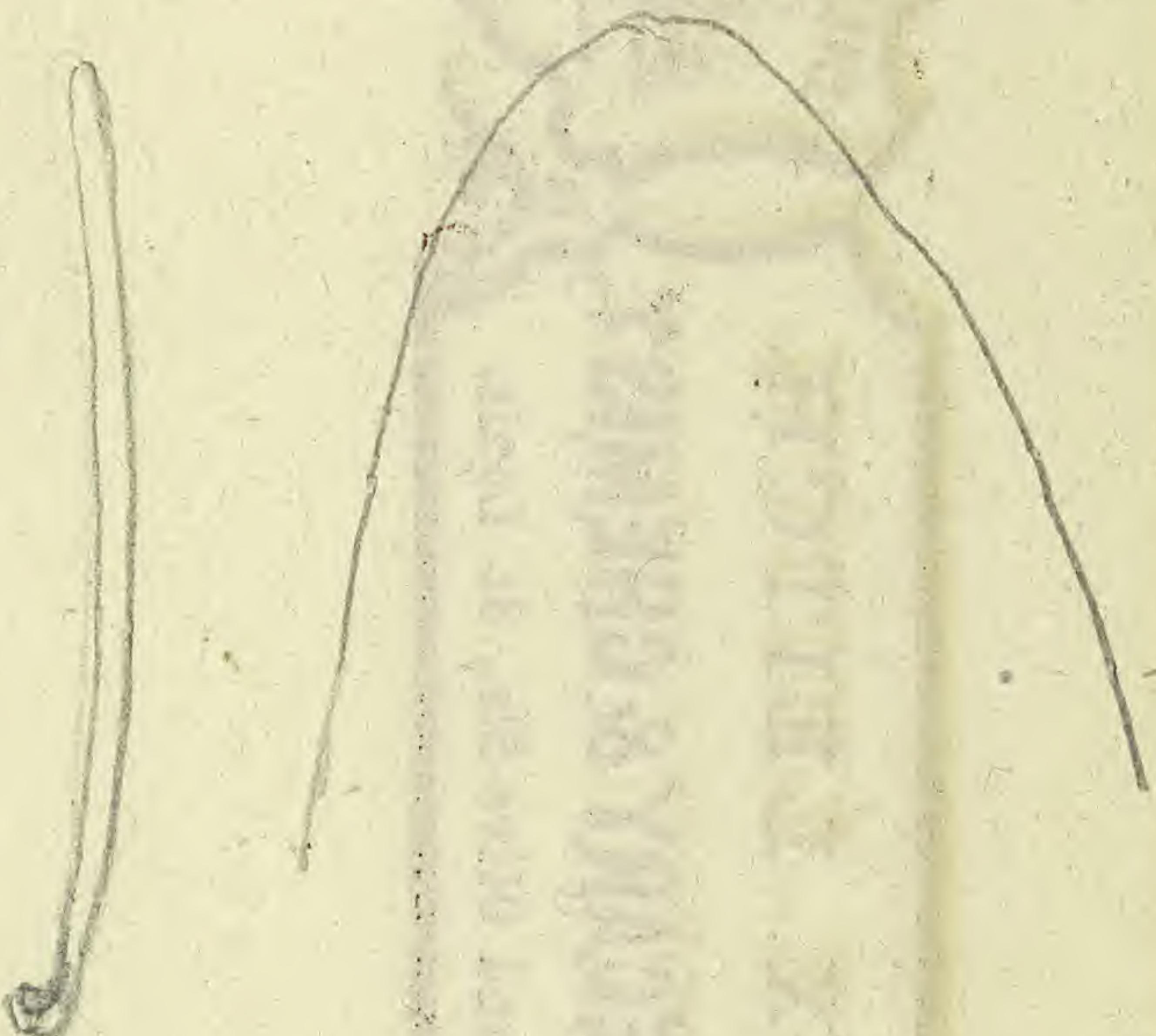
Sierra Valley, Sonoma 1875

Leaves of Lower Branches



12-15 lines of stomata above

4-5 in each band below



leaves 1-1½ inches  
 $3\frac{1}{2}$ -1 cm wide



0 1 2 3 4 5 6 7 8 9 10

cm

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0 1 2 3 4 5 6 7 8 9 10  
cm

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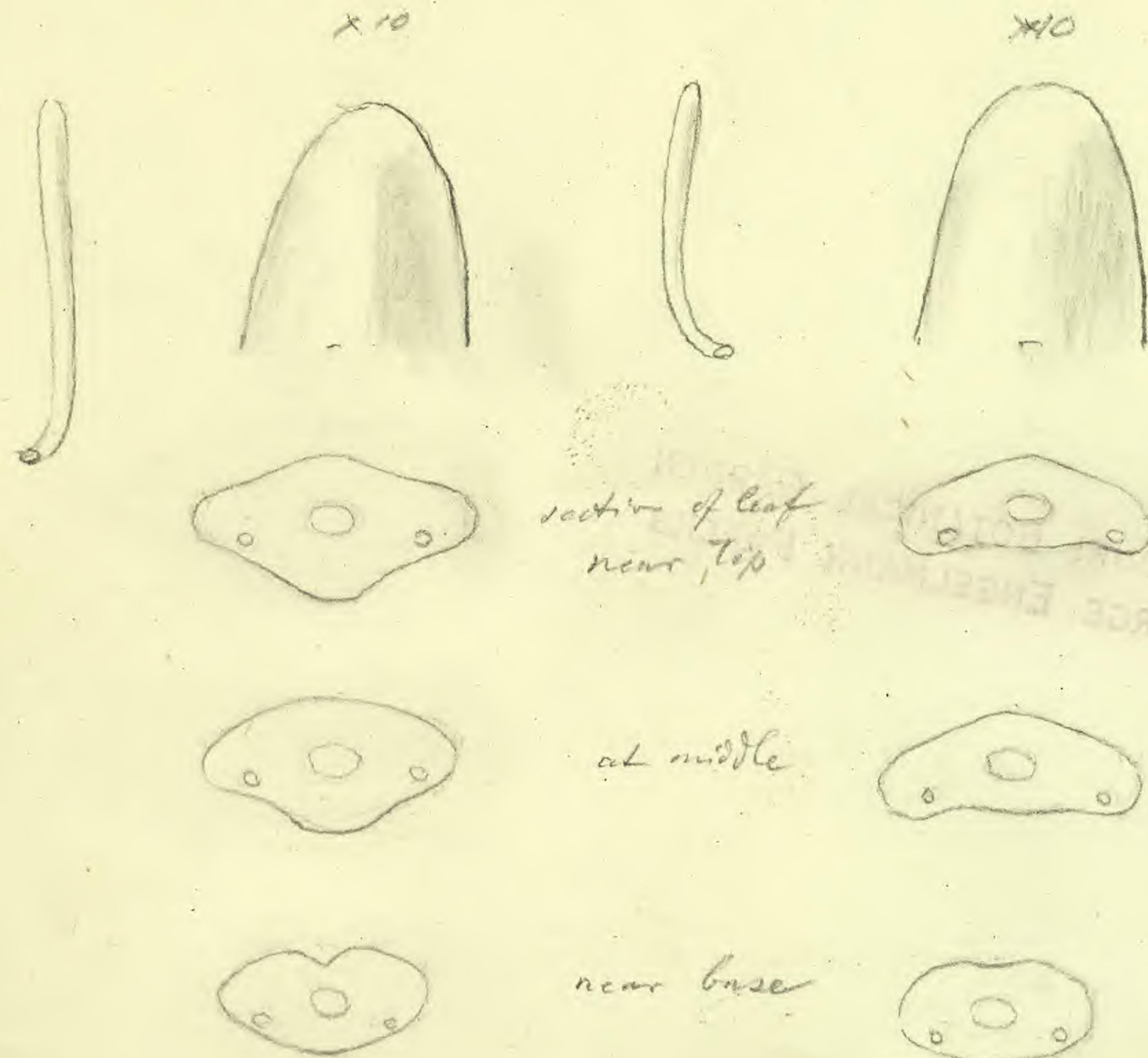
MISSOURI  
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GARDEN

*A. nobilis*

April 11, 1872

Shasta, Jeffrey

I. W. Raw



0 1 2 3 4 5 6 7 8 9 10

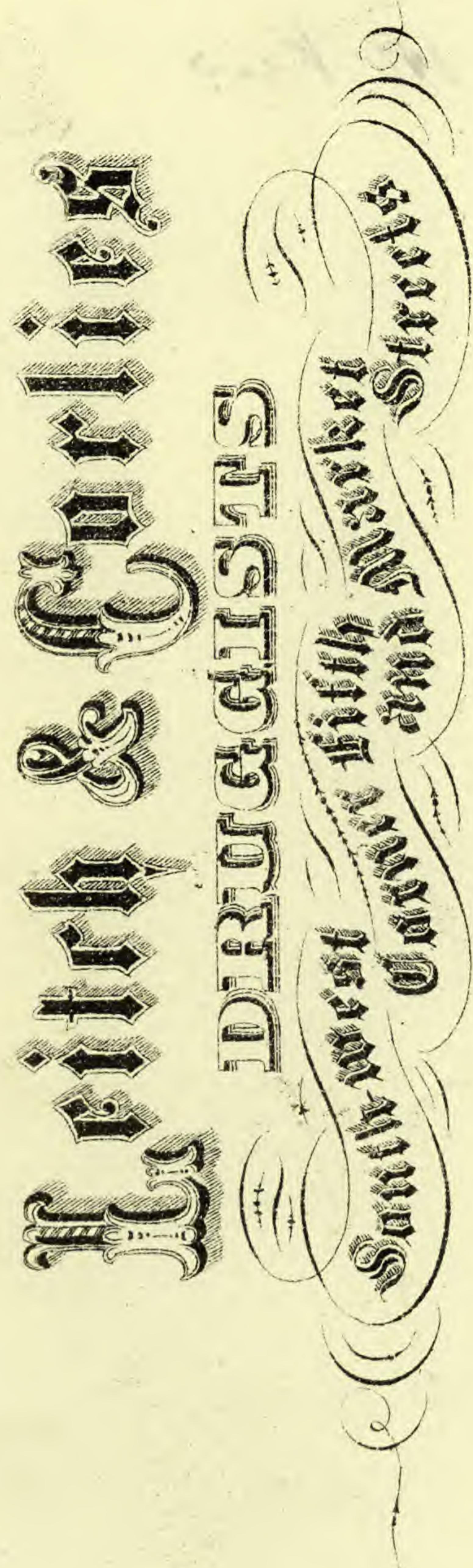
cm

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GARDEN

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0 1 2 3 4 5 6 7 8 9 10

cm

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GARDEN

*Abies magnifica*, bracteosa

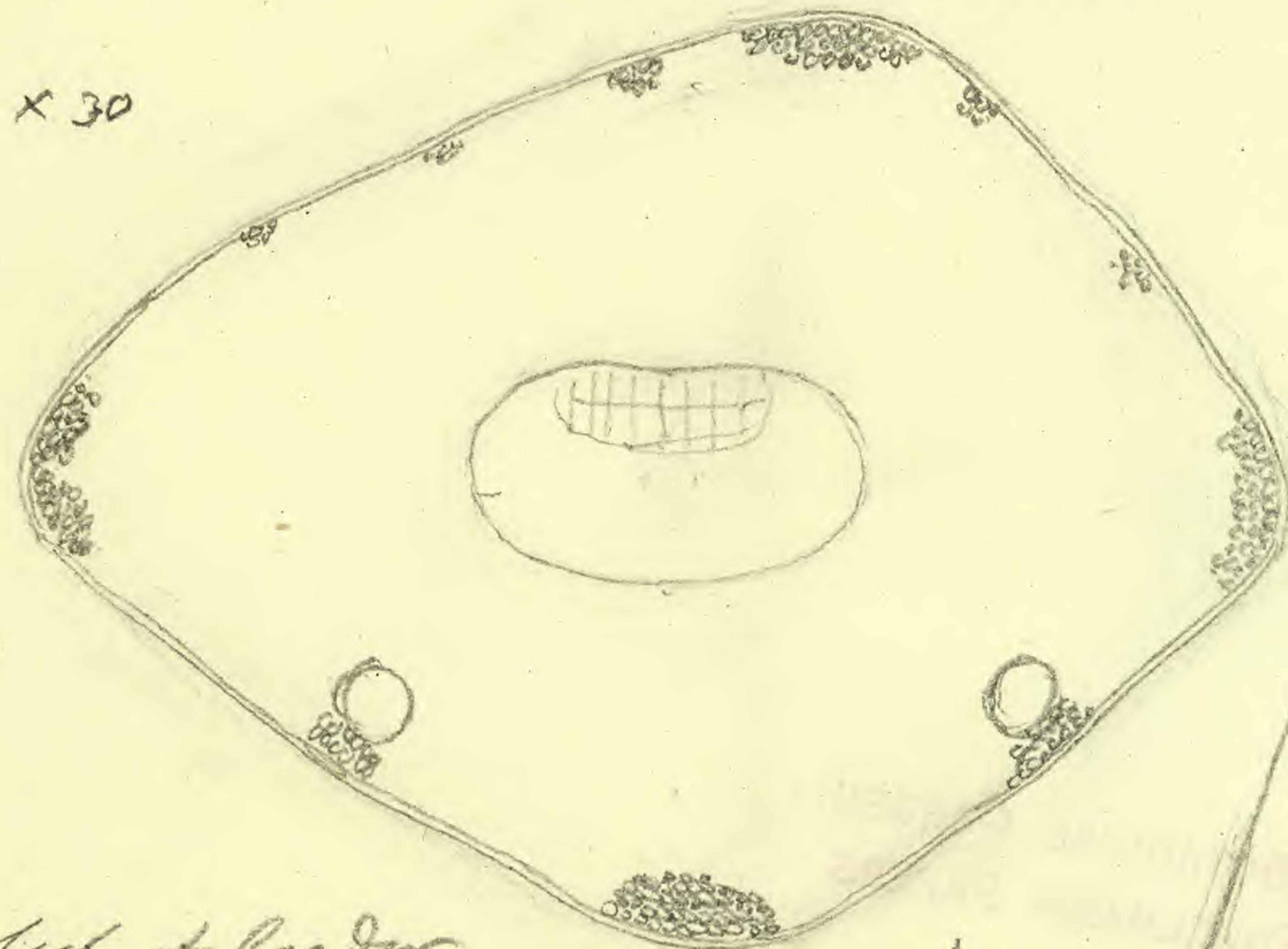
Sherita

Aug. 1880

March 30

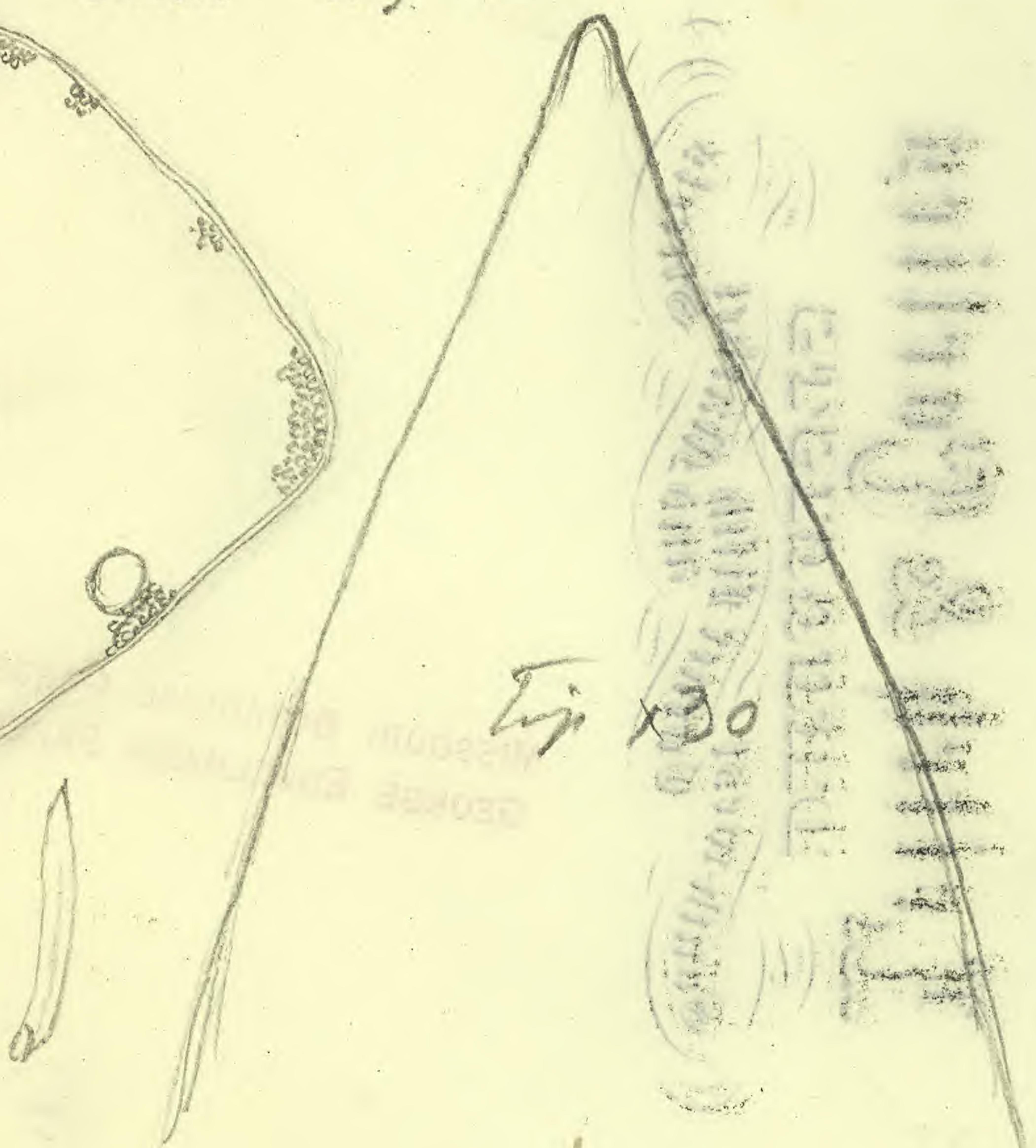
1881

$\times 30$



leaf of cedar  
of an old tree

$\times 30$



0 1 2 3 4 5 6 7 8 9 10

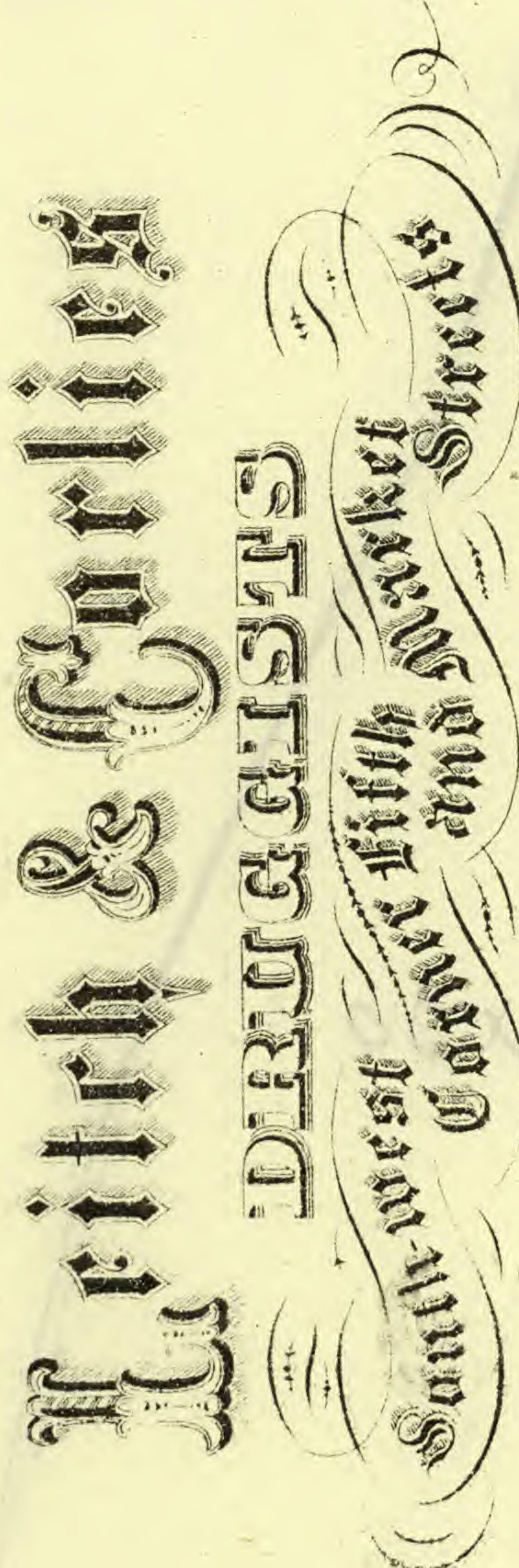
cm

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GARDEN

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MISSOURI BOTANICAL GARDEN  
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

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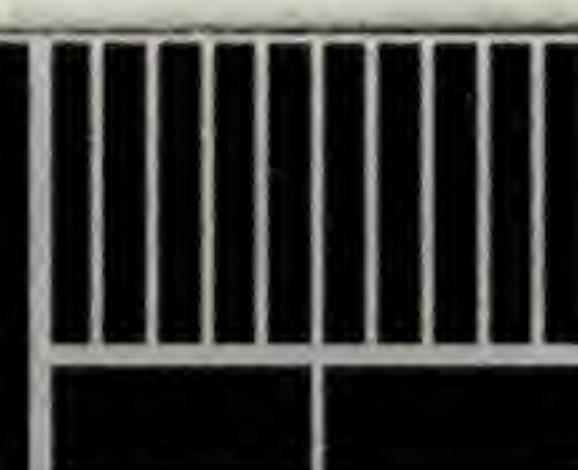
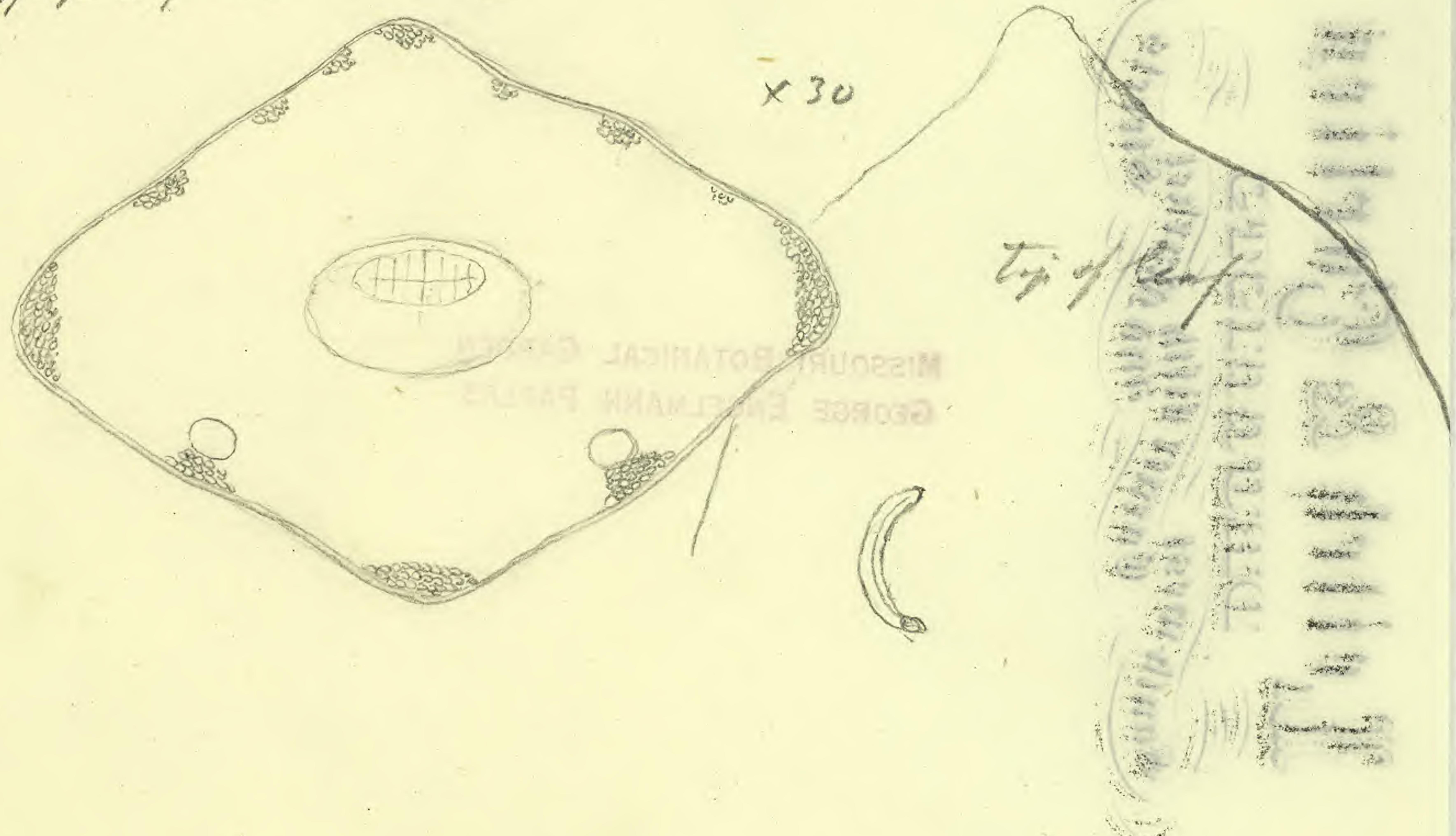
MISSOURI  
BOTANICAL  
GARDEN

*Stic magnifica* Brulloosa

March 31 1881

Shasta Aug 1880

Leaf of a fossil Branch



0 1 2 3 4 5 6 7 8 9 10

cm

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GARDEN

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0 1 2 3 4 5 6 7 8 9 10  
cm copyright reserved



# MISSOURI BOTANICAL GARDEN

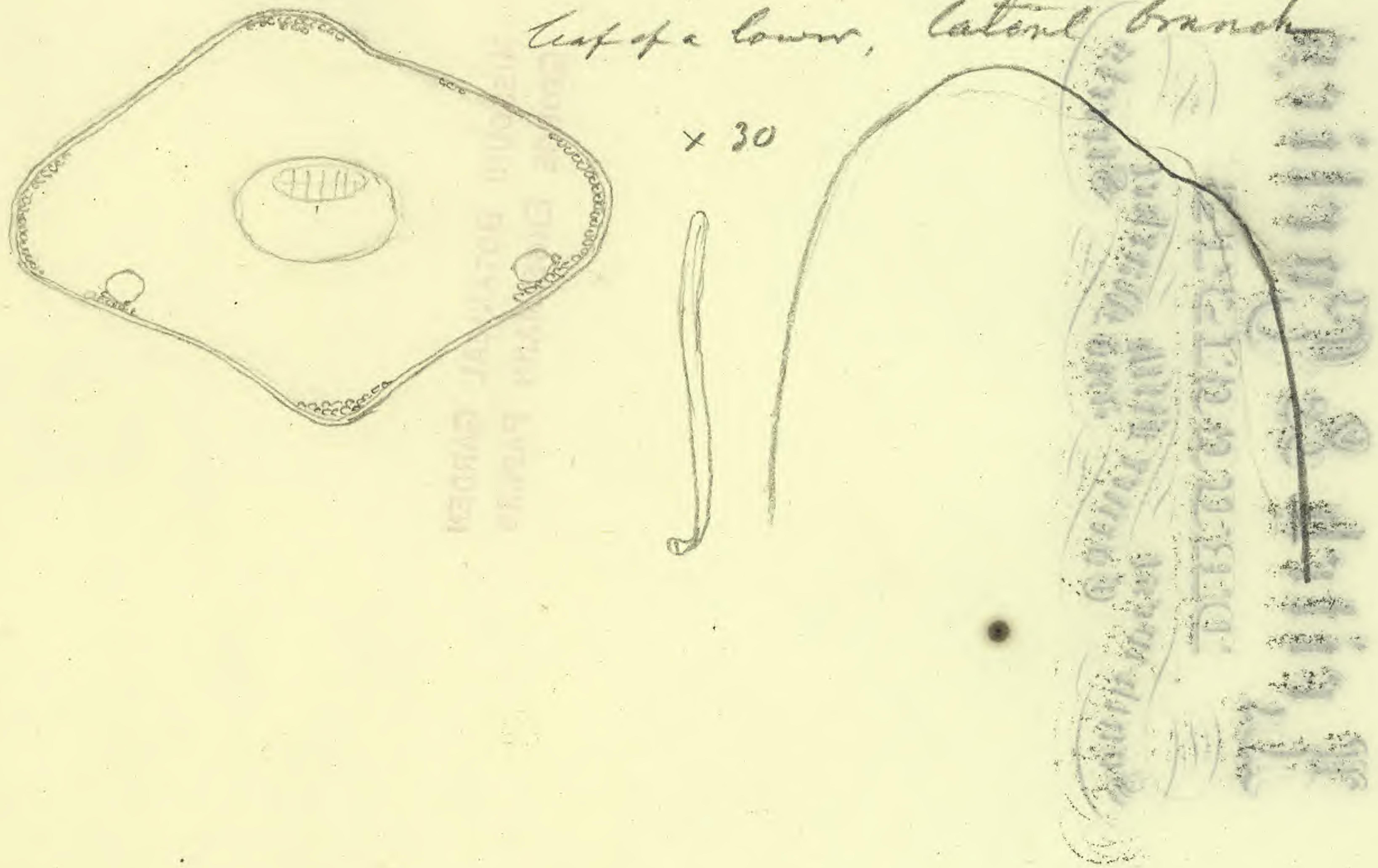
*Abies magnifica* var *bracteata*

March 31 1881

Shasta Aug 1880

leaf of a lower, lateral branch

$\times 30$



0 1 2 3 4 5 6 7 8 9 10

cm

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BOTANICAL  
GARDEN

12637

MISSOURI BOTANICAL GARDEN  
PAPERS  
GEORGE ENGELMANN

MISSOURI BOTANICAL GARDEN  
PAPERS  
GEORGE ENGELMANN



0 1 2 3 4 5 6 7 8 9 10

cm

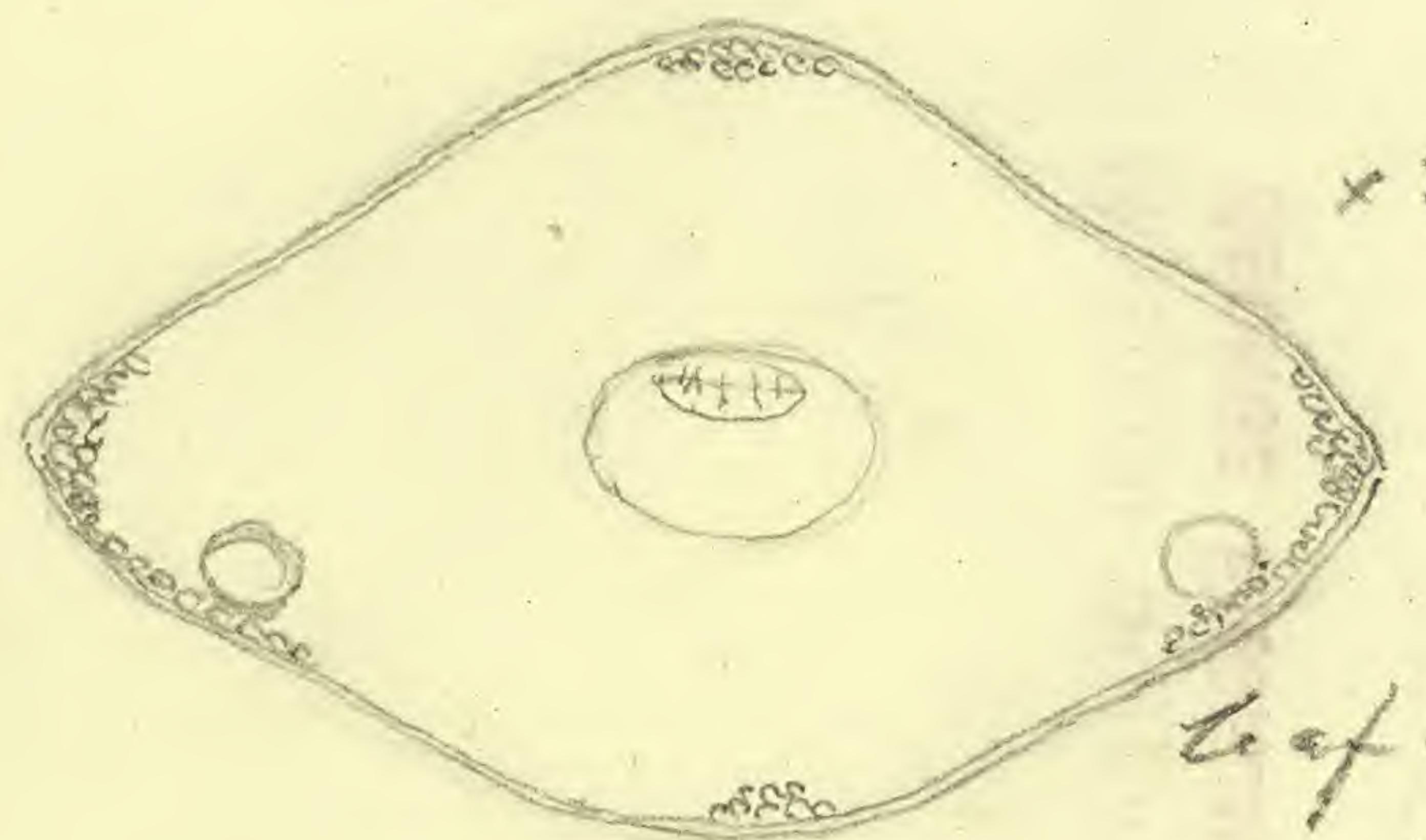
copyright reserved



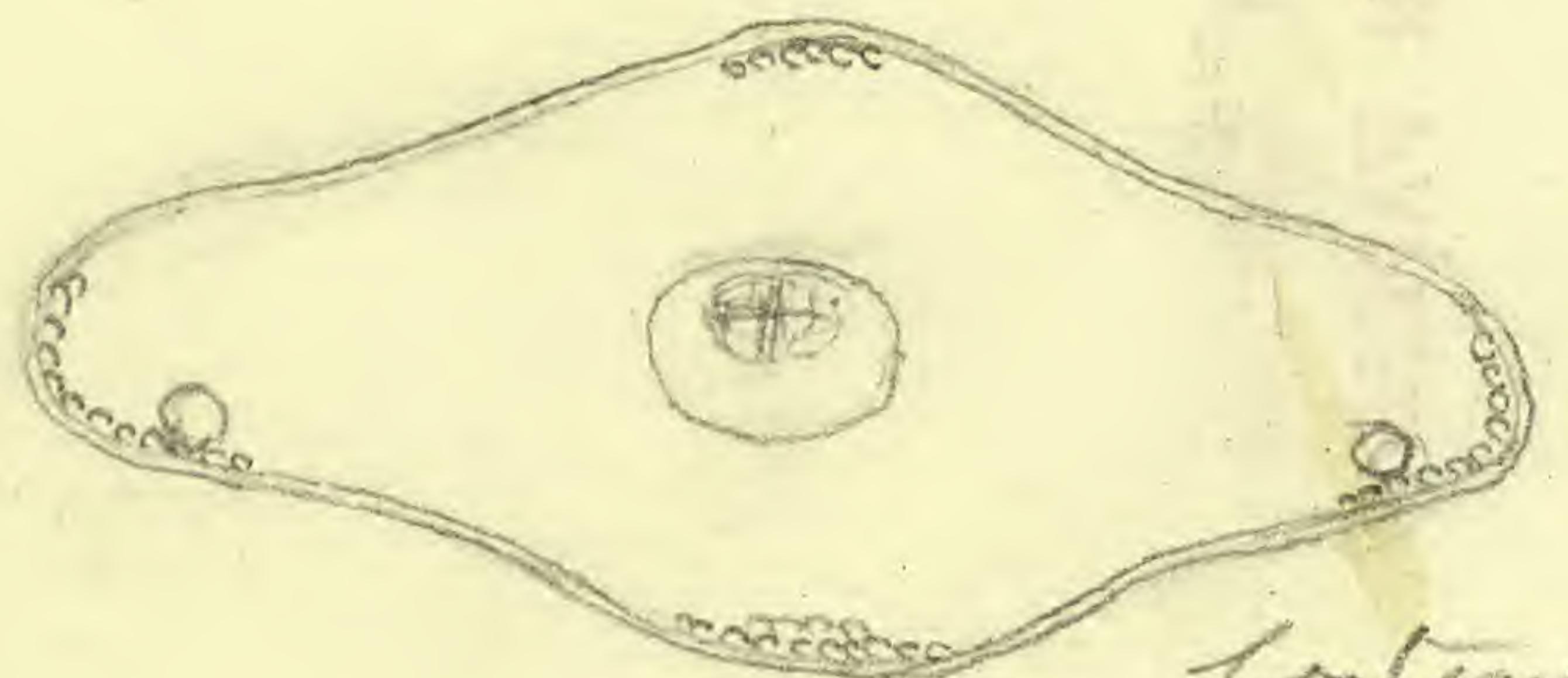
MISSOURI  
BOTANICAL  
GARDEN

*Abies magnifica* var. *granteosa*  
Shasta Aug 1880

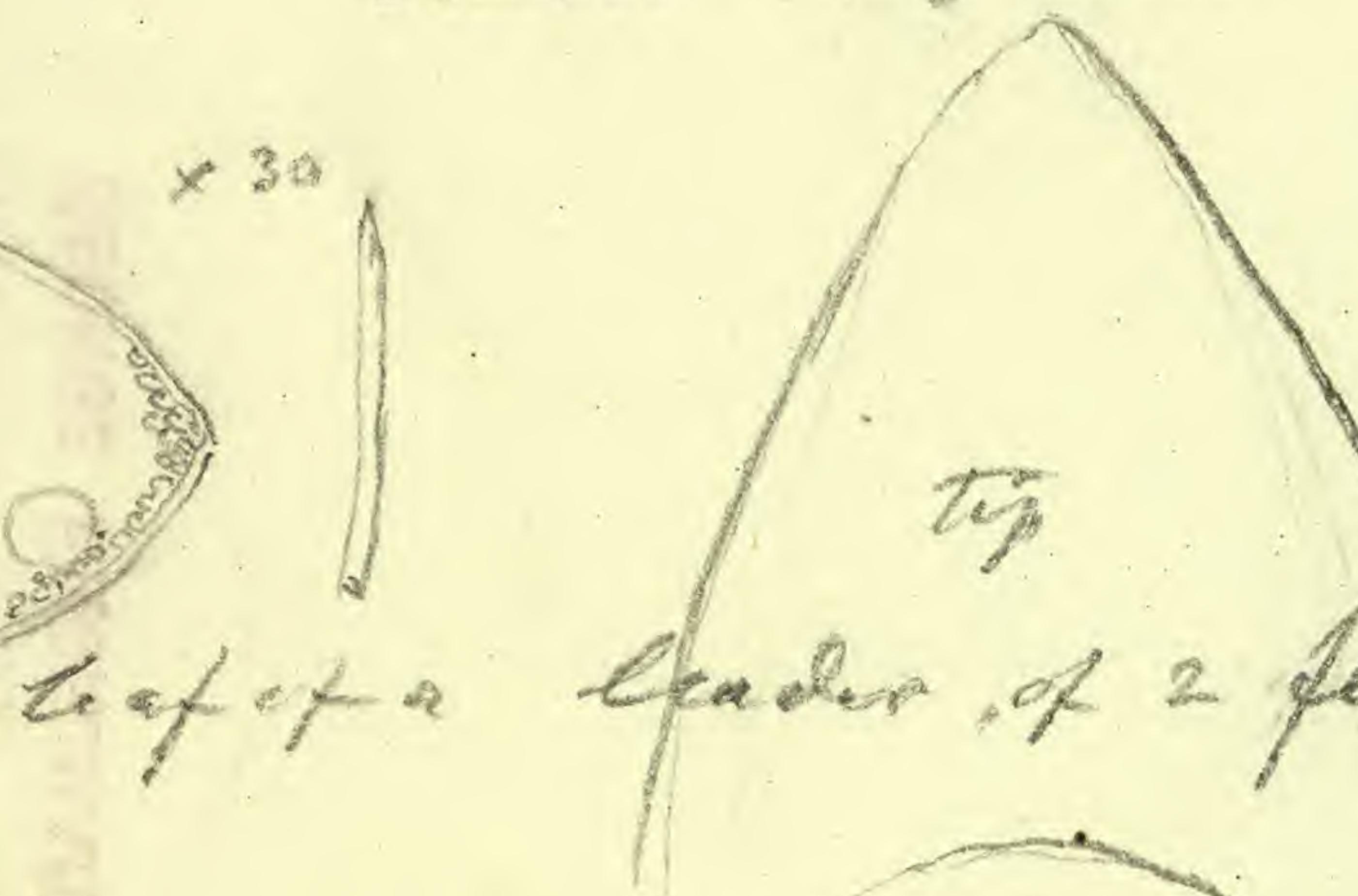
March 31 1881



x 30

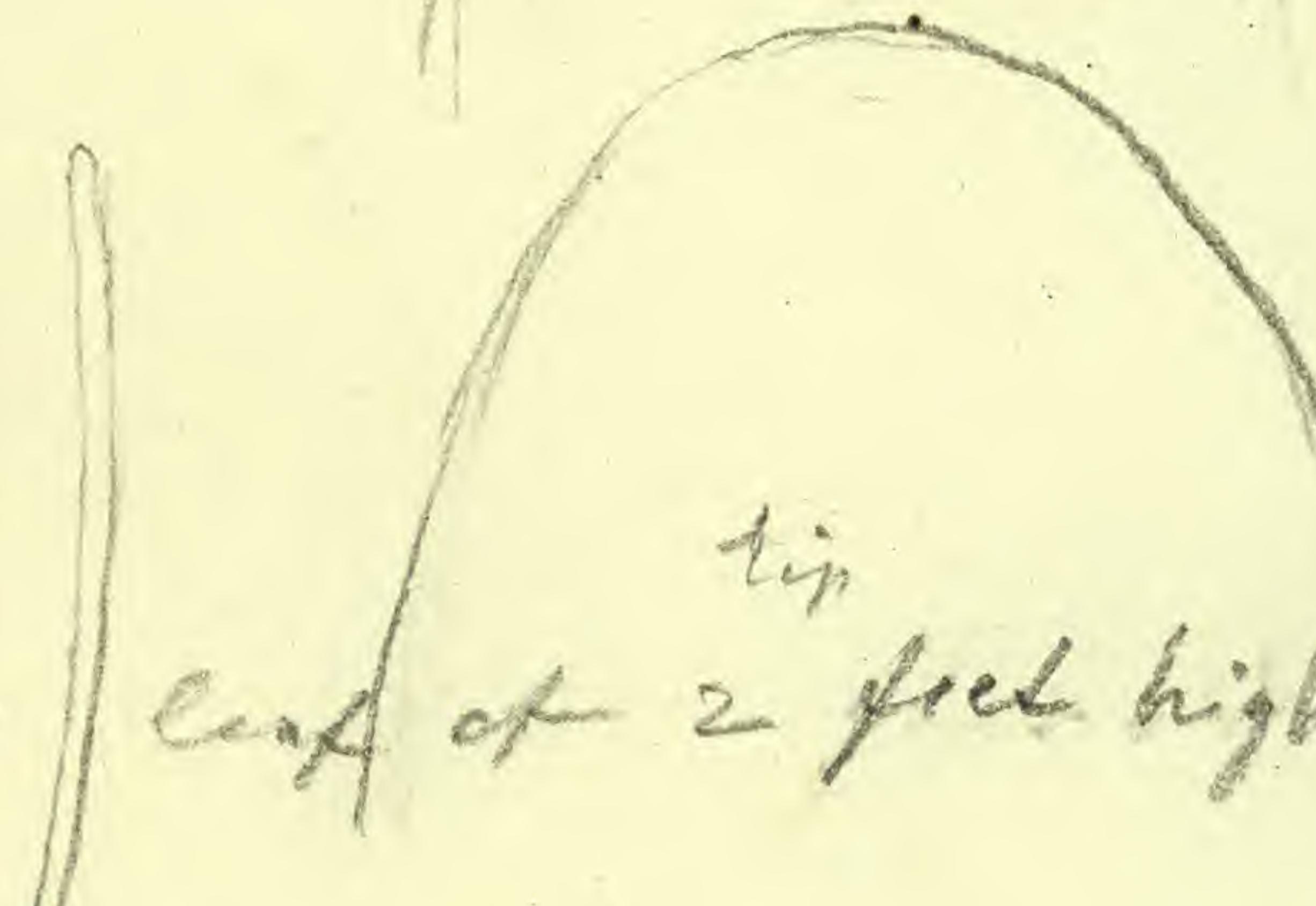


lateral



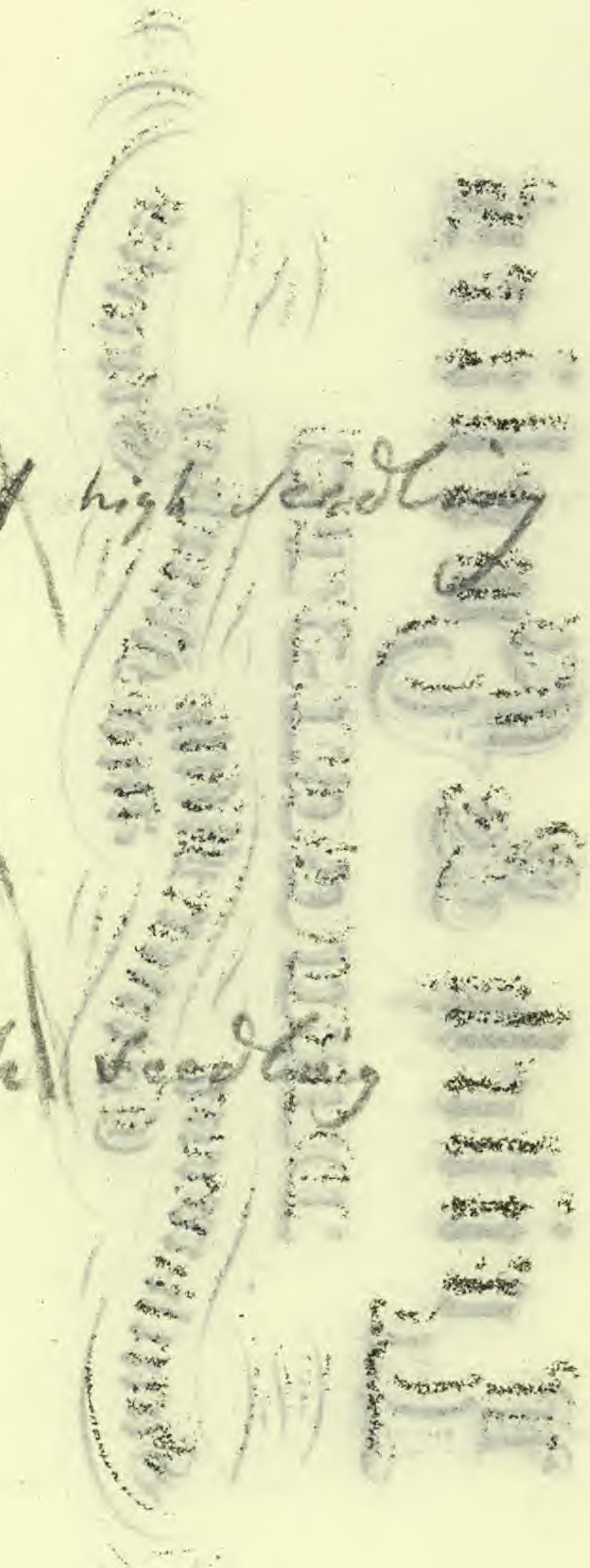
tip

leaf of a leader of 2 feet high seedling



tip

leaf of 2 feet high seedling



0 1 2 3 4 5 6 7 8 9 10

cm

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MISSOURI  
BOTANICAL  
GARDEN

Will & Gill

DRUGGISTS

South-west Corner Fifth and Market Streets

MISSOURI BOTANICAL GARDEN  
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12638



0 1 2 3 4 5 6 7 8 9 10

cm

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BOTANICAL  
GARDEN

5 tab

*A. religiosa*



0  
cm

1

2

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BOTANICAL  
GARDEN

12639

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0 1  
cm

2 3 4 5 6 7 8 9 10

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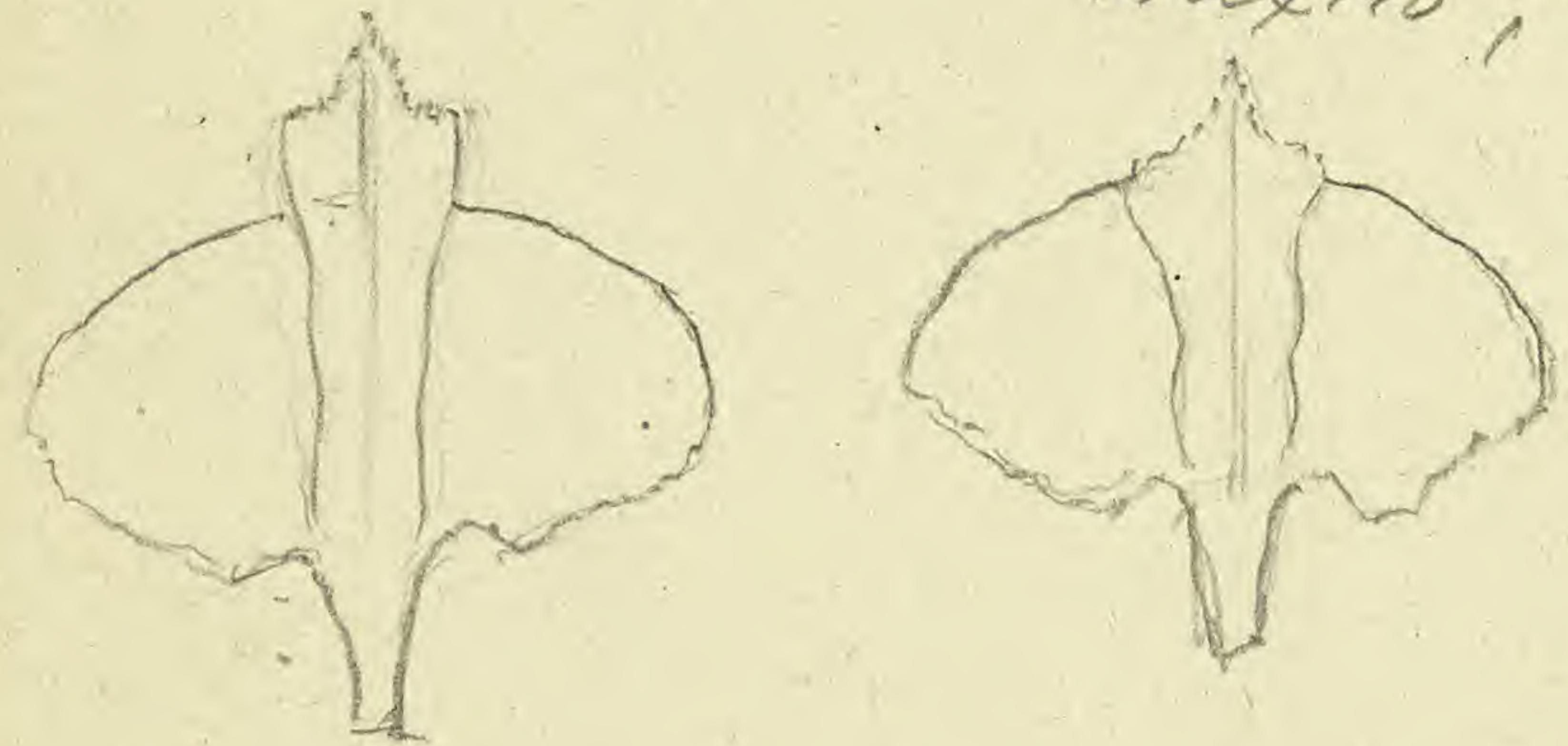


MISSOURI  
BOTANICAL  
GARDEN

*Abies religiosa*

Sept 13 1880

mexico, Chrenberg - No Dorli



24 - 26 x 13 : 14 <sup>mm</sup>

width : height = 4 : 2  
 $3\frac{1}{2} : 2$



0

1

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cm

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GARDEN

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0 1 2 3 4 5 6 7 8 9 10  
cm

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MISSOURI  
BOTANICAL  
GARDEN

1122

*A. religiosa*

Oct 5 1875

Chromatogr 655

H. Berlin

no stomata



Microscopic Drawing  
Second Edition  
George Engelmann  
x30



no stomata



0 1 2 3 4 5 6 7 8 9 10

cm

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MISSOURI  
BOTANICAL  
GARDEN

12641

ALEX. LEITCH,  
APOTHECARY & PHARMACEUTIST.

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

MISSOURI BOTANICAL GARDEN  
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

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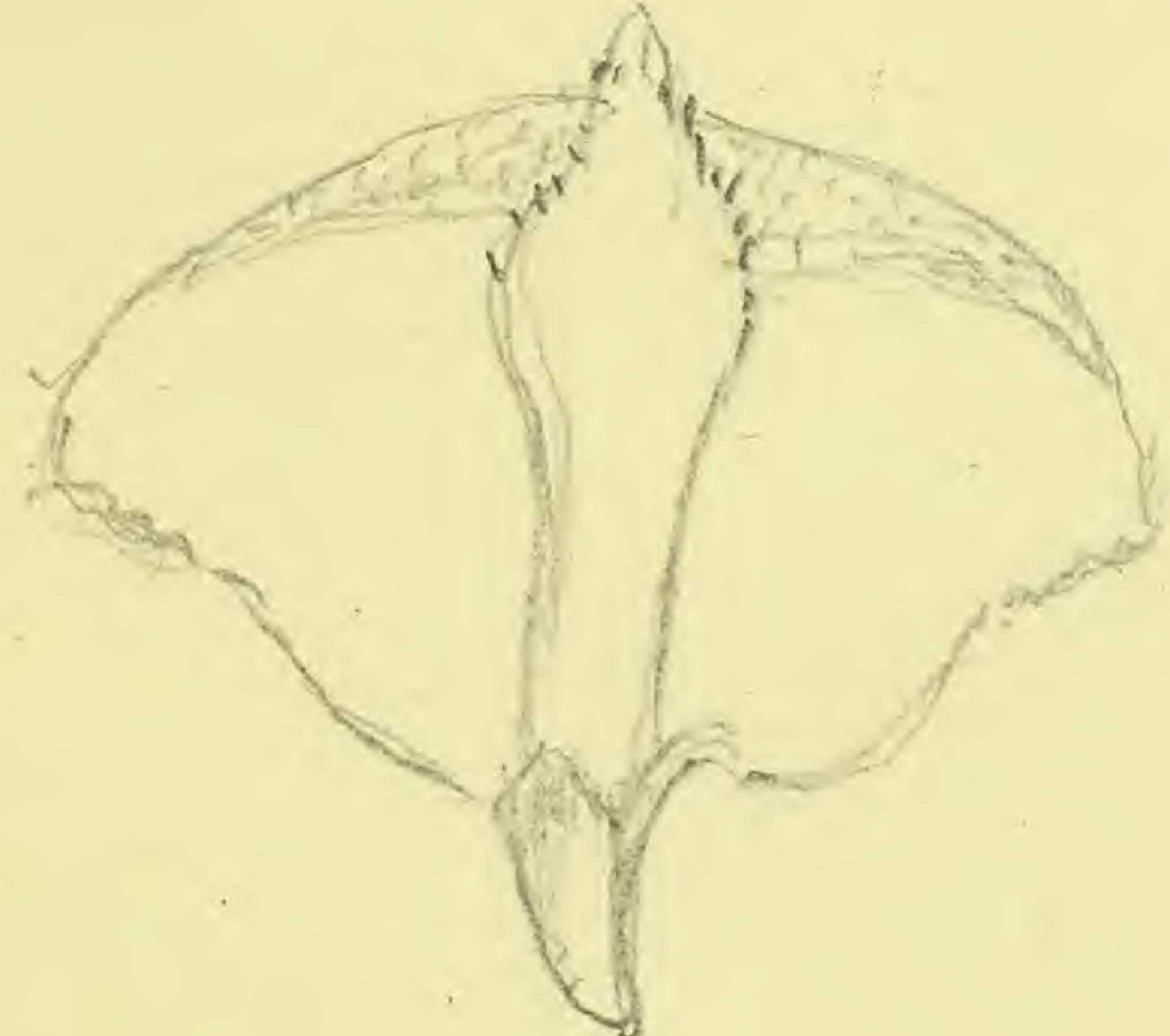
MISSOURI  
BOTANICAL  
GARDEN

*Abies religiosa*

20 June 1876

"from Venony". Dr Vasey mis  
cone 4<sup>th</sup> matur, 2" wide -  
scale in  $8/2$ , order, 15-16 lvs with  
9-6 l. high without steps

35 mm. wide  
24" high



0 1 2 3 4 5 6 7 8 9 10

cm

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MISSOURI  
BOTANICAL  
GARDEN

12642

Leitch & Corlies

DRUGGISTS

South West Corner Fifth and Market Streets.

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0 1 2 3 4 5 6 7 8 9 10

cm

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*Albu rotundosa*

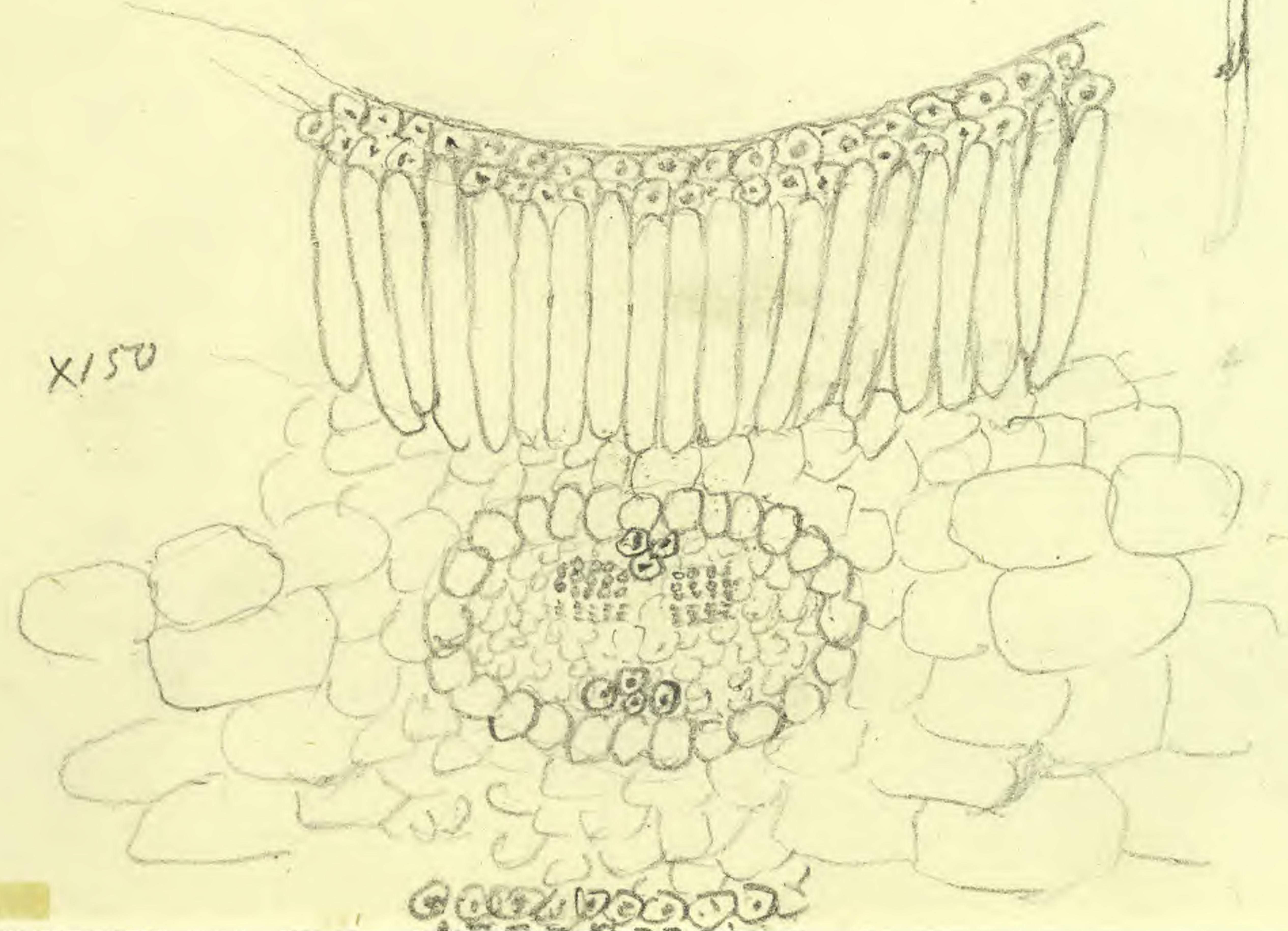
Oct 6 1875

Mesozoic Mode 18 H. Berlin

x 30



x 150



MISSOURI BOTANICAL GARDEN  
BIOLOGICAL HERBARIUM



MISSOURI  
BOTANICAL  
GARDEN



0 1 2 3 4 5 6 7 8 9 10

cm

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ALEX. LETTCH  
APOTHECARY & PHARMACEUTIST

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0 1 2 3 4 5 6 7 8 9 10

cm

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GARDEN

*A. religiosa*

Oct 5 1875

8. Gregg 663

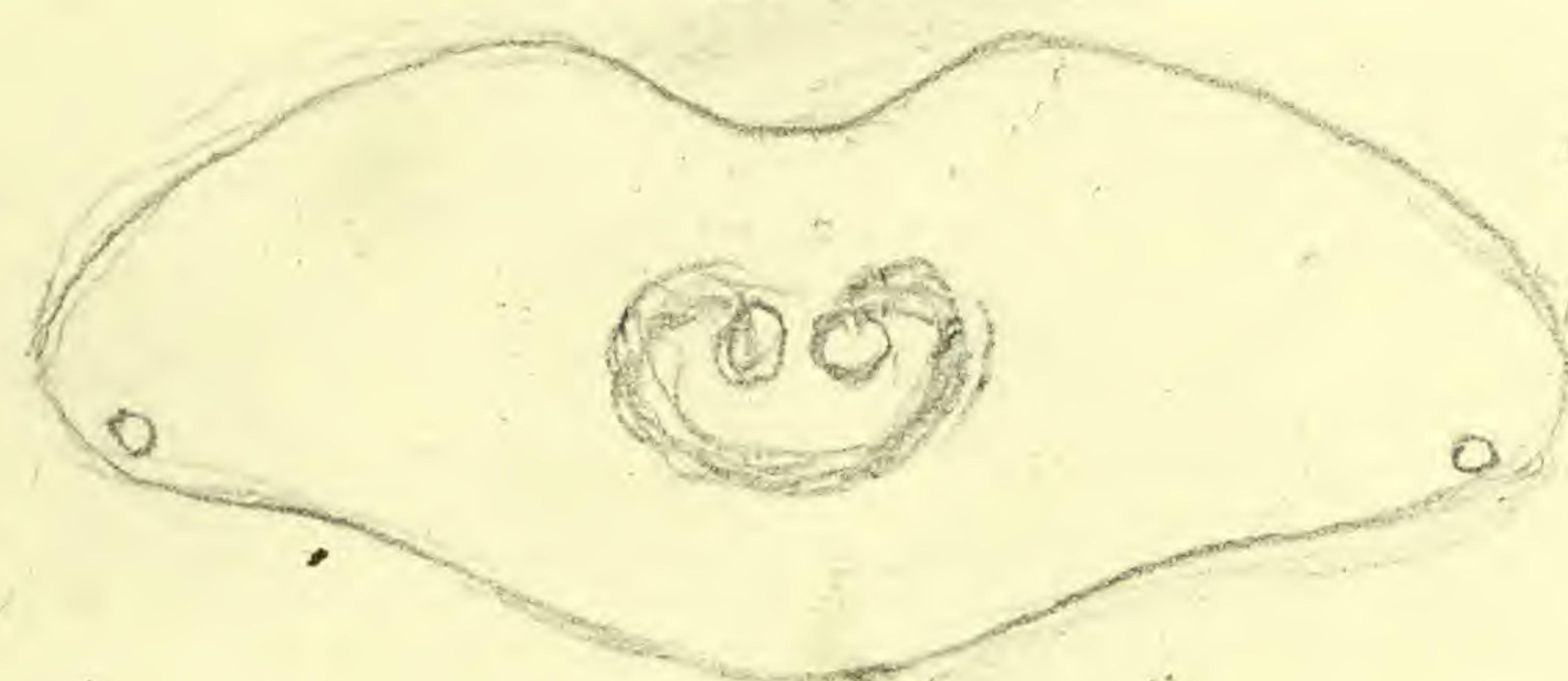
no stoma



x 30



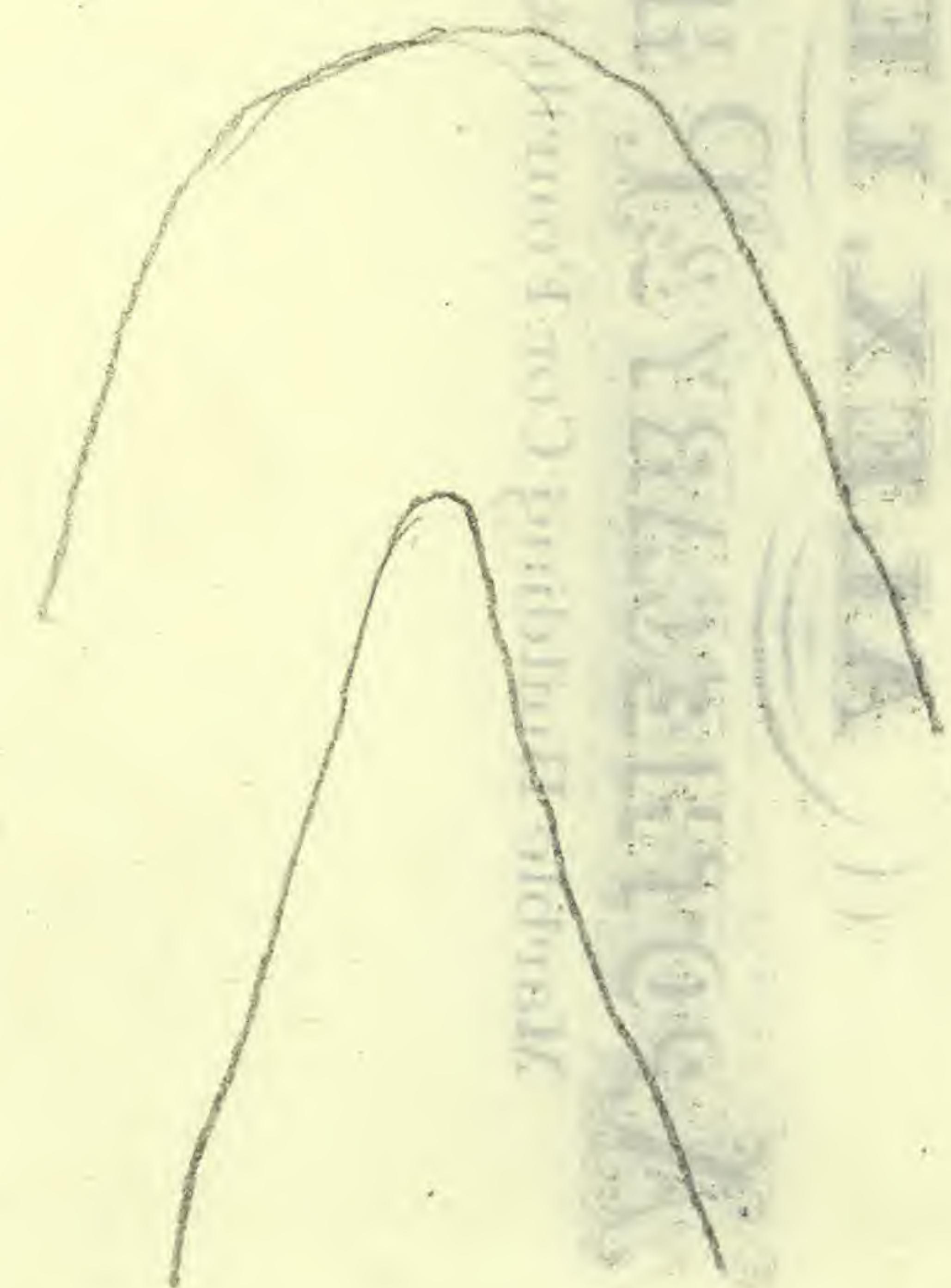
no stoma



8. Gregg. 689



no stoma



0 1 2 3 4 5 6 7 8 9 10

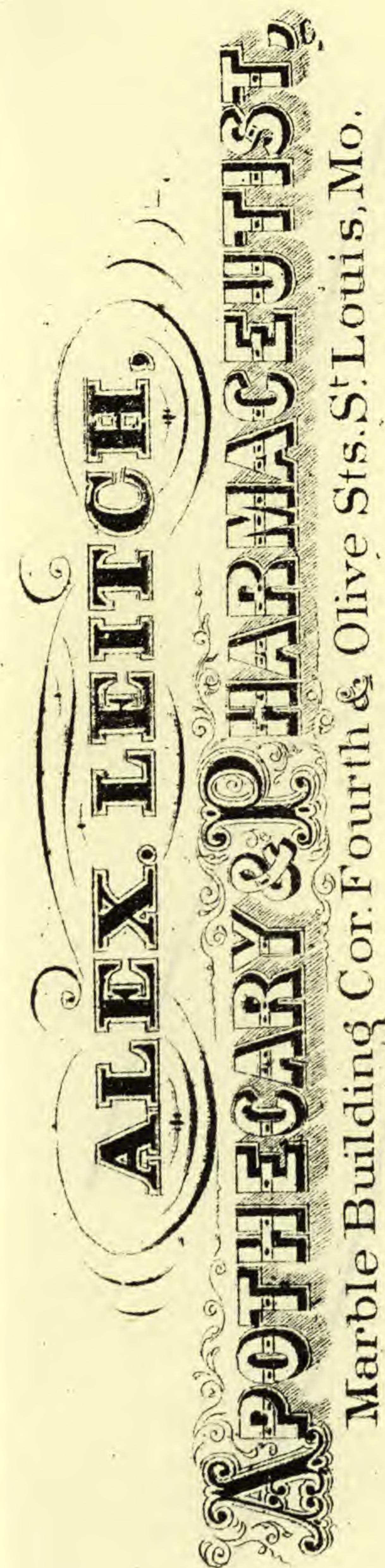
cm

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GARDEN

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0 1 2 3 4 5 6 7 8 9 10

cm

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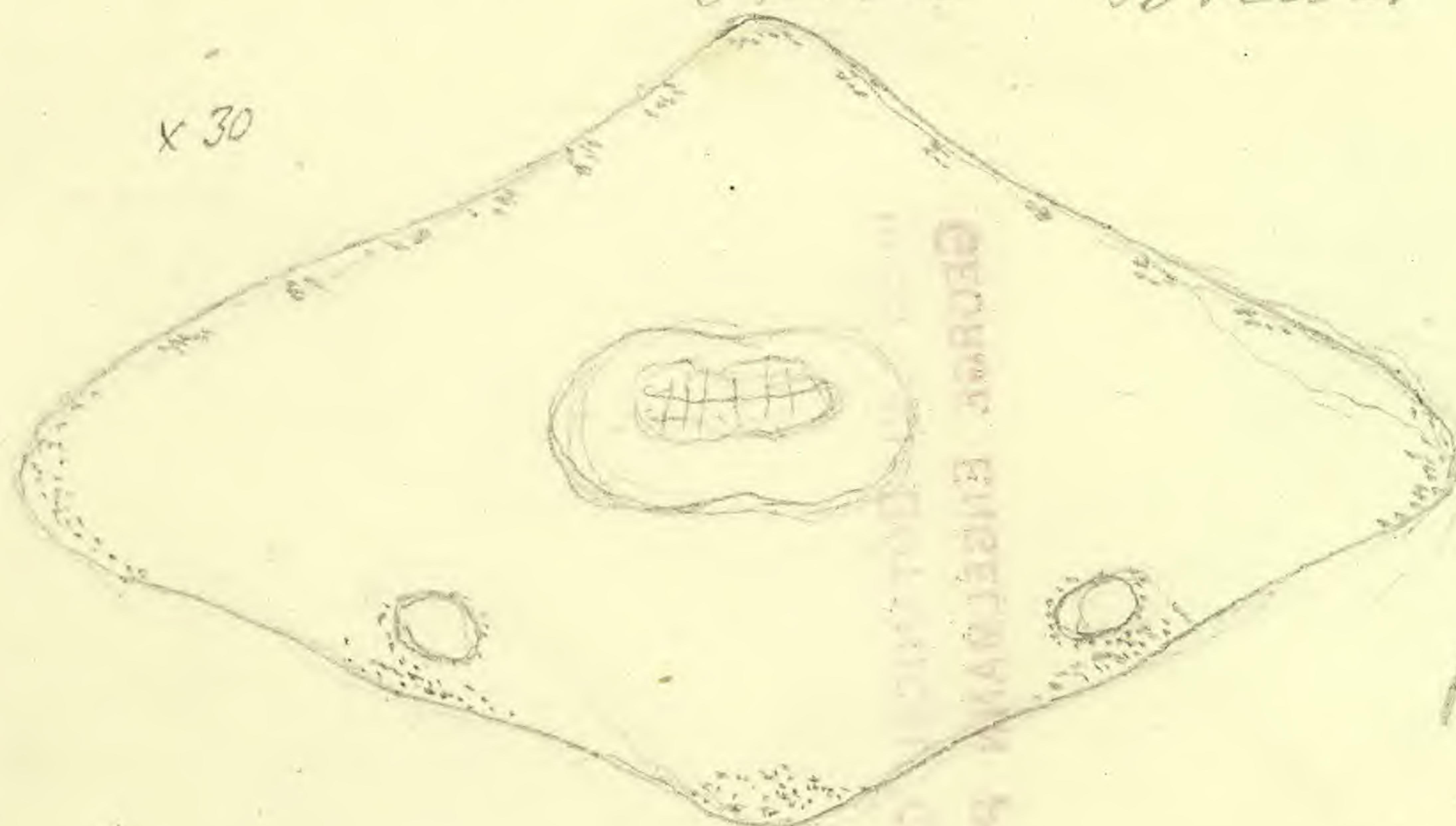
MISSOURI  
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GARDEN

*A. nobilis*

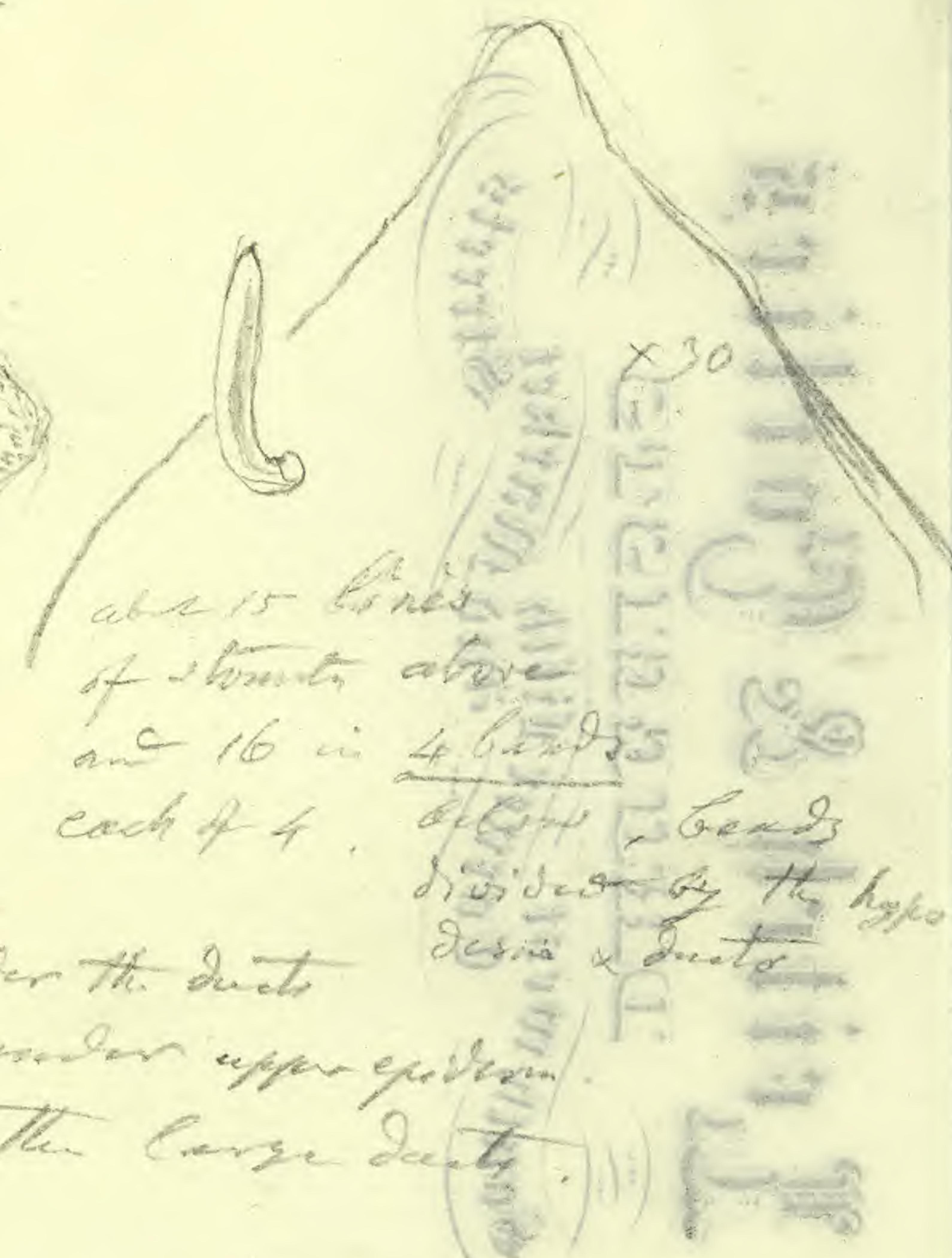
March 11 1876

Sp. Sta. Brewer

x 30



hypoderm crowded (5 layers) at lower canals  
about 3 layers on edges, 1 or 2 under the ducts  
less on upper canals - interrupted all under upper epiderm.  
a band of hypoderm cells surrounding the large ducts.



0 1 2 3 4 5 6 7 8 9 10

cm

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MISSOURI  
BOTANICAL  
GARDEN

Wright & Gilliss

DRUGGISTS

South-west Corner Fifth and Market Streets

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12645



0 1 2 3 4 5 6 7 8 9 10

cm

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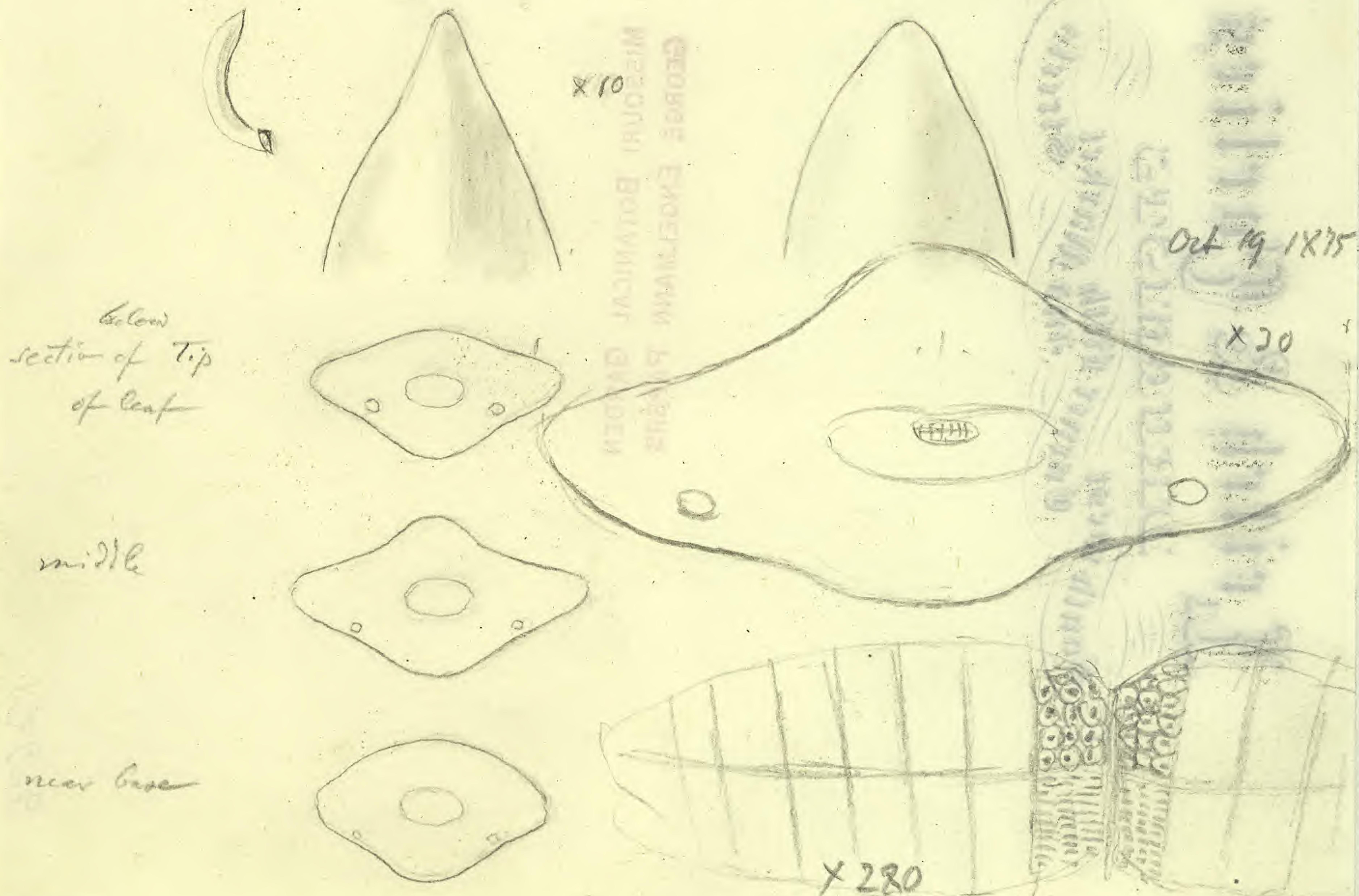


MISSOURI  
BOTANICAL  
GARDEN

*A. nobilis*

April 13 1872

Mt Shasta, Specimen No 1401



0 1 2 3 4 5 6 7 8 9 10

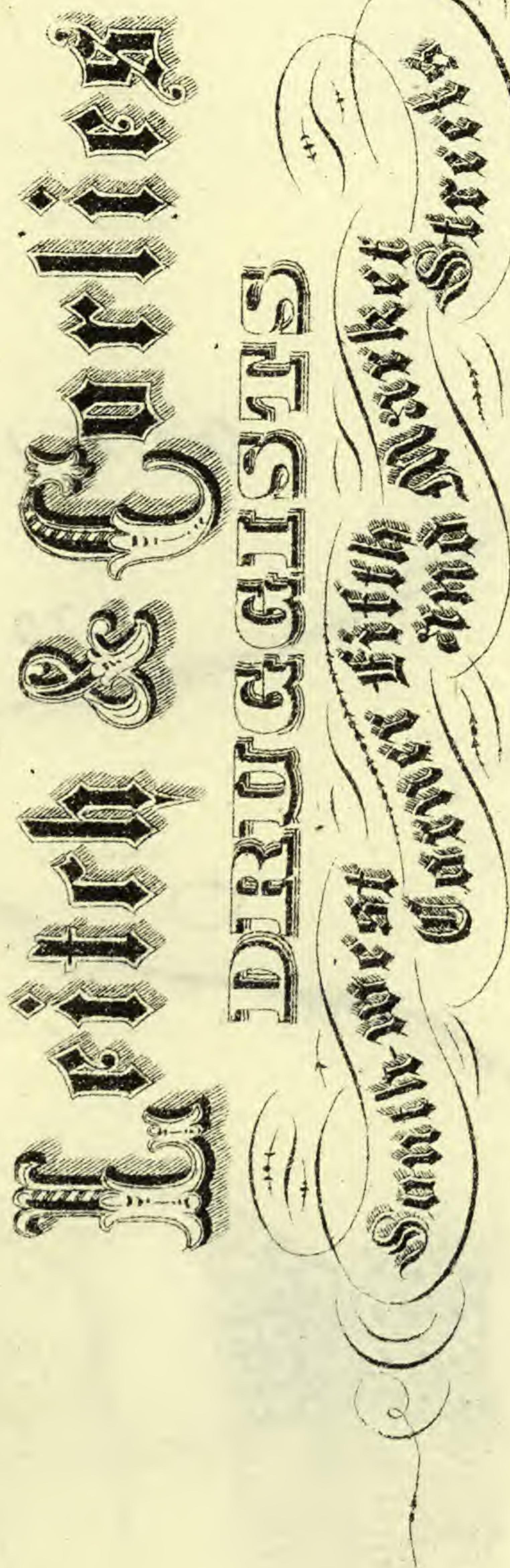
cm

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GARDEN

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0 1 2 3 4 5 6 7 8 9 10

cm

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